

THE SCHOOL JOURNAL.

NEW YORK AND CHICAGO.

VOL. XXXV.—NO. 1.
E. L. KELLOGG & CO., 25 Clinton Pl. (8th St.), N. Y.

JANUARY 7, 1928.

\$2.50 A YEAR; 6 CENTS A COPY.
Western Office, 151 Wabash Avenue, Chicago, Ill.

JANE ANDREWS' POPULAR BOOKS.

THE SEVEN LITTLE SISTERS

WHO LIVE ON THE ROUND BALL THAT FLOATS IN THE AIR.

With an Introduction by Louisa Parsons Hopkins,
(Supervisor of Boston Schools.)

In which, as her old friend and schoolmate, she tells somewhat of Jane Andrews' way of writing and working, and the story of the growth of this most popular book for Supplementary Reading, and of the group of her friends which included Thomas Wentworth Higginson, Lucretia Crocker, Harriet Prescott Spofford, and others now prominent in Literary and Educational circles. "She was a complete woman,—brain, will, affections, all, to the greatest extent, active and unselfish; her character was a harmony of many strong and diverse elements; her conscience was a great rock upon which her nature rested; her hands were deft and cunning; her ingenious brain was like a master mechanic at expedients; and in executive and administrative power, as well as in device and comprehension, she was a marvel. If she had faults, they are indistinguishable in the brightness and solidity of her whole character." An exceedingly interesting article from one who was her lifelong friend. The new edition is printed from new electrotypes plates. Cloth, gilt, illustrated, \$1.00. School Edition, 50 cents net. By mail, 55 cents.

THE SEVEN LITTLE SISTERS PROVE THEIR SISTERHOOD.

Cloth, gilt, \$1.00. School Edition, 50 cents net. By mail, 55 cents.

TEN BOYS WHO LIVED ON THE ROAD FROM LONG AGO TO NOW.

The poet, JOHN G. WHITTIER, says of it:—

LEE AND SHEPARD, Boston: AMESBURY, 11th mo. 22, 1885.
I have been reading the new book by Jane Andrews, "Ten Boys who Lived on the Road from Long Ago to Now," which you have just published, and cannot forbear saying that in all my acquaintance with juvenile literature I know of nothing in many respects equal to this remarkable book, which contains in its small compass the concentrated knowledge of vast libraries. It is the admirably told story of past centuries of the world's progress, and the amount of study and labor required in its preparation seems almost appalling to contemplate. One is struck with the peculiar excellence of its style,—clear, easy, graceful, and picturesque,—which a child cannot fail to comprehend, and in which "children of a larger growth" will find an irresistible charm. That it will prove a favorite with old and young I have no doubt. It seems to me that nothing could be more enjoyable to the boy of our period than the story of how the boys of all ages lived and acted.

Yours truly, JOHN G. WHITTIER.

ONLY A YEAR, AND WHAT IT BROUGHT.

A new book for girls. Cloth, gilt, illustrated, \$1.00.

GEOGRAPHICAL PLAYS.

Comprising United States, Europe, Asia, Africa and South America, Australia and the Islands, the Commerce of the World.

Complete in cloth, \$1.00. In six parts, paper, 15 cents each.

Sold by all bookellers, and sent by mail, post-paid, on receipt of price. Our School Text Book and illustrated catalogue mailed free.

LEE AND SHEPARD, Publishers, BOSTON.

SWINTON'S READERS.
SWINTON'S WORD SERIES.
SWINTON'S GEOGRAPHIES.
SWINTON'S HISTORIES.
MANSON'S SPELL'G BLANKS.
WEBSTER'S DICTIONARIES.
ROBINSON'S ARITHMETICS.
FISH'S ARITHMETICS.
SPENCERIAN COPY-BOOKS.
WHITE'S DRAWING.
SMITH'S PHYSIOLOGIES.
HUNT'S (DR. E. M.) HYGIENE.

TEACHERS are reminded to address us for our new pamphlet "SPECIAL SELECTED LIST" of Representative Text Books in the Common Branches, sent free to any address. It gives a practical solution of the questions involved in securing the best books at the lowest prices.

Our Brief Descriptive List sent free on request.

IVISON, BLAKEMAN & CO.,

753 & 755 BROADWAY, NEW YORK and 149 WABASH AVE., CHICAGO.

HOLMES' New Readers

NOW READY FOR PRIMARY SCHOOLS.

THE MOST DELIGHTFUL AND BRILLIANT SERIES YET ISSUED.

THESE new Readers, now rapidly passing into the hands of delighted pupils, are in the very front rank of excellent and attractive reading-books of recent issue. Nothing that is useful and important in the latest approved school-room methods in reading is omitted in them. The most thorough and critical work is put upon every page.

The charming reading lessons, their careful gradation, and their beautiful typography will hold the steady interests of learners.

The language lessons, phonic analysis, and reviews are developed in the most effective manner; and the script exercises are presented in peculiarly easy and graceful forms of letters.

The illustrations, entirely new, are designed and engraved by some of the first artists of the country, and the paper and printing are of rare neatness and elegance.

For quality, matter, method, beauty, mechanical excellence, and cheapness, these books yield the palm to none.

Specimen copies mailed for examination upon receipt of the introduction price.

HOLMES' NEW FIRST READER, 15 CENTS.

HOLMES' NEW SECOND READER, 25 CENTS.

HOLMES' NEW THIRD READER, 40 CENTS.

UNIVERSITY PUBLISHING COMPANY,

5 SOMERSET ST., BOSTON.

19 MURRAY ST., NEW YORK.

GRAY'S BOTANIES
DANA'S GEOLOGIES.
TENNY'S ZOOLOGY.
TENNY'S NAT. HIST.
COOLEY'S CHEMISTRY.
COOLEY'S PHILOSOPHY
GUYOT'S PHYS. GEOG.
LOOMIS'S MUSIC.
TOWNSEND'S CIVIL GOV'T
FISHER'S OUTLINES OF
UNIVERSAL HIST.
KIDDLE'S ASTRONOMY.

FOUR IMPORTANT NEW BOOKS.

EDUCATIONAL MOSAICS.

By Gen. THOMAS J. MORGAN, Principal Rhode Island State Normal School. A book that every teacher and educator should have. Price, post-paid, \$1.50.

INSTITUTES OF GENERAL HISTORY.

By E. BENJAMIN ANDREWS, D.D., LL.D., Professor of History in Brown University. A book that every teacher, student, and general reader of History should have. Postpaid, \$2.00.

ELEMENTARY CHEMICAL TECHNIQS.

By GEORGE N. CROSS, A.M., Principal Robinson Female Seminary, Exeter, N. H. A book that every teacher of Chemistry should have. Price, postpaid, \$1.25.

STUDIES IN CIVIL GOVERNMENT.

By WILLIAM A. MOWRY, Ph.D., Boston. A text-book for the use of classes in Civil Government. (Ready October 1st.)

Send for our new Catalogue and special Price Lists of our important new Educational Publications and Supplies. Correspondence is invited.

SILVER, ROGERS, & CO., Publishers, 50 Bromfield St., Boston.

122 & 124 Wabash Ave., CHICAGO.
9 Bond Street, NEW YORK.

SWINTON'S STUDIES IN ENGLISH LITERATURE.

As the title states this is a collection of *Studies* in English

The study of literature, as usually pursued in our High Schools, is confined to a "cram" on the personal biography of authors, and is a study *about* rather than *in* literature. This is a fact generally conceded, and most text-books are made on this plan.

We have in the work under consideration a bold departure from this custom that has already won an enviable position among books of its class. No man is better fitted to edit a work of this kind than the well-known author, Prof. William Swinton, a man of high attainments in many departments, but who is seen at his best in the field of English.

The choice of the typical selections that appear in this volume was no easy task, but authorities agree that they are culled with rare taste and the best judgment. They are truly *masterpieces*. Preceding each author is an appropriate "characterization" by a distinguished critic. Thus we have the merits of Shakespeare and Pope set forth by Dr. Johnson; of Thackeray by Dickens; of Holmes by Whittier, etc. Authentic and artistic pictures of most of the authors represented are given. The volume also contains definitions, notes, analyses, and glossary, as aids to systematic literary study, and is by all odds the best *working text-book* extant.

Attracted by the unusual presence in one volume of so many (forty) of the best specimens of English, many teachers have been led to use this book to furnish supplementary reading, and in view of its low cost the use seems most appropriate and will doubtless extend.

A sample copy will be sent to any teacher on receipt of \$1.00, the introductory price. When the book is wanted to replace other Literatures or Fifth and Sixth Readers, we will make a liberal allowance for the old books.

We solicit correspondence in regard to this book.

WESTERN AGENCY:
255 & 257 Wabash Avenue,
CHICAGO, ILL.

HARPER & BROTHERS, Publishers,
Franklin Square, New York City.

NEW ENGLAND AGENCY:
50 Bromfield Street,
BOSTON, MASS.

W. H. Walmsley & Co.

SUCCESSORS TO

R. & J. BECK,

1016 Chestnut St., Phila.

Microscopes and all
Accessories and Ap-
paratus, Photogra-
phic Outfits for Ama-
teurs, Spectacles,
Eye-Glasses, Opera
and Marine Glasses,
etc., etc.

Illustrated Price List
mailed free to any address,
mention this paper in cor-
responding with us.



A.W. Faber's Lead Pencils

The Oldest and the Best
Of all Pencils.

E. FABER'S

Penholders and Rubber Erasers

MADE ESPECIALLY FOR ALL GRADES IN SCHOOLS.

If you cannot obtain the

FABER MAKE

OF

Pencils, Penholders, etc.,

TAKE NO OTHERS,

But send Fourteen cents for splendid Case of
Samples, worth thrice the money, or Ten cents for
one dozen assorted kinds, with

LESSON ON LEAD PENCILS.

THE NEW A. W. F.

Free Hand Drawing Pencil.

Single Samples Free.

Address,

Educational Department,

EBERHARD FABER,

545-547 Pearl St., n. Broadway.

NEW YORK CITY.

A. H. ANDREWS & CO.,

Manufacturers of the only

Dovetailed School Furniture

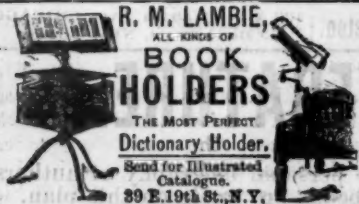
IN THE WORLD.



ANDREWS'
Globes, Tellu-
rians, Maps,
Charts of all
kinds, Black-
boards, Dust-
less Erasers
and Crayons.
Just Published,
Andrews' New
Series of School
Maps.

A. H. ANDREWS & CO.,

686 Broadway, N. Y. | 195 Wabash Ave., Chicago.



R. M. LAMBIE,

ALL KINDS OF

BOOK

HOLDERS

THE MOST PERFECT

Dictionary Holder.

Send for Illustrated

Catalogue.

39 E. 19th St., N.Y.

6% 7%

The American Investment Company, of Em-
mettsburg, Iowa, with a paid up capital of \$600,
000, surplus \$75,000, offers first Mortgage Loans
drawing seven percent. Also 6 cent. 1/2 year De-
benture Bonds secured by 100 per cent. of first Mort-
gage Loans held in trust by the Mercantile Trust
Company, N. Y. 5 per cent. certificates of deposit
for periods, under on year. Write for full infor-
mation and re'ence to the company at 130 Nassau
St., New York. A. L. ORNBY Vice-President.

PLEASE mention SCHOOL JOURNAL when com-
municating with advertisers.

6 Barclay St.
12 Vesey St.

E. B. BENJAMIN,

NEW YORK.

Importer and Manufacturer of

SCHOOL AND LABORATORY APPARATUS, PURE CHEMICALS.

Agent for NON-BLISTERING PLATINUM.

A very large stock of first-class Apparatus for sale at lowest rate for best goods. Correspondence solicited.

JOSEPH GILLOTT'S
STEEL PENS.

GOLD MEDAL, PARIS EXPOSITION, 1878.

SOLD BY ALL DEALERS.

For ARTISTIC USE in fine drawings, Nos. 659 (the celebrated Crowquill), 290 and 291. For
FINE WRITING, Nos. 303, 604, and Ladies', 170. For BROAD WRITING, Nos. 294, 359, and
Stub Point, 849. For GENERAL WRITING, Nos. 404, 332, 390, and 604.

JOSEPH GILLOTT & SONS, 91 John Street, N. Y. HENRY HOE, Sole Agent.



School Supply and Publishing Co.

36 BOND STREET, NEW YORK.

EVERYTHING for the SCHOOL-ROOM.

SCHOOL BOOKS, STATIONERY, and SUPPLIES OF ALL KINDS.
SCHOOL FURNITURE.

Price Lists on application. --- Correspondence solicited.

ARTHUR COOPER, Manager.



E. R. STOCKWELL,

Manufacturer of

Badges and Medals for Pupils of Seminaries and Schools,
also Class Pins, Rings and Bracelets.

19 JOHN STREET, NEW YORK.

Send for Illustrated catalogue.
Parents, Teachers or Scholars desiring any article of Jewelry for personal
use or for presentations can be supplied by me. Watches-Rings-Pins-
Bracelets-Diamonds-Chains. Latest styles and prices reasonable.

CHARLES De SILVER & SONS,

No. (G) 1102 Walnut Street, Philadelphia.

PUBLISHERS OF

INTERLINEAR CLASSICS.

"We do advise to spend seven or eight years merely scraping together so much miserable Latin
and Greek as might be learned otherwise easily and delightfully in one year."—MILTON.
Virgil, Caesar, Horace, Cicero, Sallust, Ovid, Juvenal, Livy, Homer's Iliad, Gospel of St. John, and
Xenophon's Anabasis, each to teachers, \$1.50.
Clark's Practical and Progressive Latin Grammar; adapted to the Interlinear Series of Classics,
and to all other systems. Price to Teachers, \$1.10.
Sargent's Standard Speakers, Frost's American Speaker, Pinnoek's School Histories, Lord's Schools
Histories, Manasco's French Series, etc.
Sample pages of Interlinears free. Send for terms and new catalogue of all our publications.

TO BOARDS OF EDUCATION, SUPERINTENDENTS AND JANITORS.

I am prepared to buy and pay cash whether the amount is 5 or 5,000 dollars for school books,
Encyclopedias, Serial Publications, Harpers', Scribners', St. Nicholas Magazines and Magazines of
American History, or will exchange for standard Books. Send for catalogue. Correspondence
solicited.

W. J. WEEDON, Wholesale Dealer in School, Subscription and Standard Miscellaneous
Books, 25 Chambers Street, New York. 419 and 421 Fulton Street, Brooklyn.

THE PRANG EDUCATIONAL CO.,

PUBLISHERS AND DEALERS IN

Drawing Books, Drawing Models,
and Artists' Materials.Prang's American Text-Books on Art Edu-
cation, ALSO MANUFACTURERS OF
PRANG'S DRAWING MODELS.

TO WHICH SPECIAL ATTENTION IS CALLED.
These MODELS have been specially designed for the
teaching of Form and Drawing in Primary and Gram-
mar Schools. They consist of both Solid and Tablet
arranged in a carefully graded series, are made with
the greatest regard for accuracy and beauty, and are
furnished at the lowest possible prices. They have
been adopted by the leading cities of the country, and
are absolutely indispensable to the correct teaching
of Form and Drawing in every stage, and especially
at the outset.

For catalogue and particulars, address

THE PRANG EDUCATIONAL CO.,

7 Park Street, Boston, Mass.

79 Wabash Avenue, Chicago.

THE publishers of THE SCHOOL JOURNAL would esteem it a great favor if names
of teachers who do not take it and who would be likely to be interested. are sent us
that they may send specimen copies.

BOSTON SCHOOL SUPPLY CO.

15 Bromfield St., Boston.

PUBLISH—

Mailing Price.

CROCKE'S Method of Teaching Geography.

By LUCRETIA CROCKER, Supervisor of Boston

Public Schools. .55

PHILIPS' Historical Readers

FOR SUPPLEMENTAL WORK.

No. 1. Stories from English History. .35

" 2. Early England, to the Year 11. .40

" 3. Middle " 1154 to 1603. .60

" 4. Modern " 1603 to 1884. .80

WOOD'S Natural History Readers.

By REV. J. G. WOOD, M. A.

FIRST READER. .34

SECOND " .36

THIRD " .50

FOURTH " .65

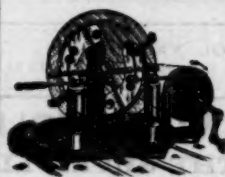
B. F. BROWN & CO.,

BOSTON, MASS.

Highest Award and Only Medal for Shoe Dress-
ing, etc., at Paris Exposition, 1876.Satin
PolishBeware of
Imitations.French
DressingNone Genuine
Without Paris Medal
on Every Bottle.Highest Award New Orleans Exposition Against All
Competitors—A Silver Medal.

JAS. W. QUEEN & CO.,

PHILADELPHIA.

Philosophical, Electrical
AND Chemical Apparatus,

New Table Air-
pumps. Superior
Lever Air-pumps
Lowest Rates to
Schools. Corre-
pondence desired.
Mention this JOUR-
NAL.

EIMER & AMEND,

205, 207, 209, and 211 Third Avenue.

NEW YORK.

Importers and Manufacturers of
Chemical Apparatus,

AND

CHEMICALLY PURE CHEMICALS.

Chemists,
Colleges,
Schools and
Laboratories.

Supplied with the best goods at the lowest prices.
Bunsen's Burners and Combustion Fur-
naces, a specialty in manufacture.



BULLOCK & CRENSHAW,

528 ARCH STREET, PHILADELPHIA.

Manufacturers and Importers

CHEMICAL APPARATUS,

PURE CHEMICALS,

For Colleges and Schools.

ILLUSTRATED PRICED CATALOGUES
furnished on application.

NEW PALTZ NORMAL SCHOOL.

New term will begin February 8, 1888.
Tuition and text-books free to Normal Stu-
dents.

Special attention to common school
teachers and graduates of High Schools
and Academies. Address

EUGENE BOUTON, Ph.D., Principal,
New Paltz, Ulster Co., N. Y.

The Art School of the Metropolitan Museum
of Art of New York City, take pleasure in an-
nouncing to the public and especially to Ed-
ucational Institutions, that they have added to
their Regular Course a Normal Class, especially
organized to meet the increasing demand for
thoroughly qualified Teachers of Art in our
Public and Private schools.

The course will consist of both lectures and ex-
ercises in Theory, Principles and Practice of Art,
with explanation of Methods and Management of
Classes; and is adapted to the requirements of
our schools from primary to advanced.

The Subjects treated this term will be per-
spective elementary drawing, free hand and de-
sign. Pupils of this class will be admitted free
to all the Associated School Lectures on Historic
Art Composition.

For the convenience of those occupied during
the week, the Normal Class, in charge of Mr.
Lucas Baker, is opened Saturday Mornings from
10 to 12 o'clock. Admission to the course is
\$10.00 for the season.

JNO. WARD STIMSON, Supt.,
METROPOLITAN MUSEUM OF ART.
795, 797 & 799 THIRD AVE., COR. 49TH STREET,
NEW YORK CITY.

The Best Form in the World!

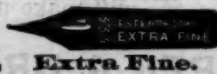
Ellsworth's Reversible Writing Books

PATENTED AND PERFECTED.

By H. W. Ellsworth, the Original and Only
"Ellsworth the Penman." Send 10 cts. for One
and See how it Works. Series, 90 cts. Address,

H. W. ELLSWORTH, Publisher,
7 Bond Street, New York.ESTERBROOK'S STEEL
PENS.

No. 333.



Extra Fine.

STANDARD SCHOOL NUMBERS,

333, 444, 128, 105 & 045.

FOR SALE BY ALL STATIONERS.

ESTERBROOK STEEL PEN CO., 26 John St., N. Y.

The School Journal.

ESTABLISHED 1870.
THE SCHOOL JOURNAL.
A WEEKLY JOURNAL OF EDUCATION.

AMOS M. KELLOGG, Editors.
JEROME ALLEN,

Terms for E. L. KELLOGG & CO.'S Publications.

The School Journal. (Weekly.) \$2.50 a year.
The Teachers' Institute and Practical Teacher.
(Monthly.) \$1.25 a year.
Treasure-Trove. (Monthly.) Illustrated. \$1.00 a year.

CLUB RATES FOR ONE YEAR TO ONE ADDRESS.
The School Journal and Treasure-Trove, \$3.
The Teachers' Institute and Treasure-Trove, \$1.80

E. L. KELLOGG & CO.,

EDUCATIONAL PUBLISHERS,

25 Clinton Place, (8th St.) N. Y.

WESTERN OFFICE. GUN EASTERN AGENTS.
E. L. KELLOGG & CO., HENRY A. YOUNG & CO.,
151 Wabash Ave., Chicago, Ill. 55 Franklin St., Boston, Mass.
J. I. CHARLOUIS, Manager Advertising Department.

New York, January 7, 1888.

CONTENTS.

EDITORIAL.

Even's of the Week—Ideals—Brooklyn's New Library
—Fable and Truth—The Spirit of Unrest—Precocious
Children—A Cause for Alarm..... 3
Class Education or Universal Education: Which?..... 4
Ideals..... 4
Editorial Correspondence..... 4
An Example of Wrong Inference..... 4
An Incident in School Government (?)..... 4
Longfellow and the Children..... 4
What Manual Training in New York Means..... 4
Hon. J. L. Pickard, LL.D..... 5

BRIEF ITEMS.

EDITORIAL NOTES.

CONTRIBUTED ARTICLES.

A Morning with Assistant Superintendent Calkins, of
New York City. By E. L. Benedict..... 5
Manual Training. By Dr. G. Von Taube, of the Gram-
ercy Park Training School..... 6

THE SCHOOL-ROOM.

The New Course of Study in the New York City Schools.
A Review of the Year 1887, for School Reading..... 7
Short Information Lessons..... 9
Outline for a Lower Exercise..... 9
Things of to-Day..... 10
Fact and Rumor..... 10

EDUCATIONAL NOTES.

Indiana State Teachers' Association..... 10
New York City Correspondence..... 11
A Representative Pennsylvania Institute. By Supt.
Wm. S. Monroe..... 11
Letters..... 11

BOOK DEPARTMENT.

New Books..... 12
Literary Notes..... 12
Books Received..... 12
Catalogues and Pamphlets Received..... 12
Reports..... 12

The Grecian gluts me with its perfectness,
Unanswerable as Euclid, self-contained,
The one thing finished in this hasty world,
Forever finished, though the barbarous pit,
Fanatical on hearsay, stamp and shout,
As if a miracle could be encoined.

—JAMES RUSSELL LOWELL.

THE management of the Union Pacific and Cen-
tral Pacific railroads was condemned in a
report made by a majority of the investigating com-
mission. It is asserted in the report that those
having charge of these great interests, enriched
themselves at the government's expense by means
of their peculiar methods, and the use and sale of
public lands. These railroad managers claim that
the government has received all that was due it,
and that their operations have always been honest
and regular. The old year closed with a chapter of
accidents. A collision occurred on the Third
Avenue Elevated railroad by which several persons
were injured. Five persons were killed by a rail-
road accident at Meadville, Pa. The exhaust house
of the Equitable Gas Company in New York was
blown to pieces. In Europe the grim portents of
war are offset by the rejoicings attending the cele-

bration of the Golden Jubilee of Pope Leo XIII.
For the first time since the Italian Government
took armed possession of Rome, the Pope performed
his priestly functions in the Grand Basilica of St.
Peter's Church. There were present cardinals,
archbishops, bishops, and other dignitaries from all
parts of the world.

A FEW weeks ago we published an editorial on
Ideals that has been widely noticed, and now
comes to us a beautiful little poem by Elizabeth
Stuart Phelps on the same subject that is so appro-
priate, we quote two of its stanzas:

The sweetest song is that
No poet has begun;
The grandest deed, the deed
No hand hath ever done:
The keenest thought, the dream
That cleaves the dying brain;
The wildest joy, the seuse
Of a release from pain.

To know the dearest words
Unsaid forever be,
Because thou mayst not speak
The least of them to me,
To know not earth nor heaven,
Nor any crimson star,
Can measure losses such
As ours unmeasured are,
To know we would not quench
With any paler wine
The everlasting thirst
That must be mine and thine.

These are so true and so impressive, no words of
ours can add to their weight. We are reaching
forward to the unattainable, and so will it ever be:
but this, instead of being a discouragement, should
be a great incentive to our work. There will always
be heights beyond and above us.

A FINE reading-room and library, the gift of Mr.
Charles Pratt, was opened last Monday in
Brooklyn. It is established as an adjunct to the
Pratt Institute, a new trade school, concerning
which much has been written. No expense has
been spared to make this new building complete,
and with 12,000 books on hand and 6,000 more soon
to be added, the readers of Brooklyn will be better
provided for than ever before. Such gifts as this
and others like it, are omens of the near advent of
a better day than the world has ever seen. Lord
Bacon was right in saying, that knowledge is power,
and good books are forces lifting humanity into
clearer light and better doing. Nine-tenths of the
way towards morality is on the road to knowledge.
Such men as Mr. Pratt are the world's moral as well
as educational benefactors.

THE young man, who is content to do as his
fathers have done, is seldom content with any-
thing that is new. He loves the old and grows con-
servative. The old text-book was good enough for
his father, and why isn't it good enough for him.
The secret of success is a spirit of unrest. West-
ward the star of empire has taken its way because
the East didn't suit those who lived in it. The
Puritans were a dissatisfied race. They could
content themselves in Holland but twelve years,
and no sooner had they become well fixed in New
England, than they began to move over the Hudson,
and plant their outposts along the shores of Lake
Erie and by the banks of the Ohio, and now they
have scattered themselves all over the vast West.
The steady-going old times have passed away, and
we have come to a period of reconstruction in the
world's history. The ballast that is to steady the
ship of progress, and carry it through the billows of
conflict, is sound education: nothing but this will
save the world.

AN old fairy story says that a fisherman found in
his net, which he drew to shore, a bottle. In
the bottle an Afrite was imprisoned. The prisoner
came to the fisherman with a prayer for deliver-
ance. And when the fisherman unstopped the
bottle—the genius swelled at once into proportions
vast and even frightful. He could no more be got-
ten back into the bottle. There he stood, an awe-
inspiring and immense development, overshadow-
ing the trembling fisherman. It is an old, familiar
fable, but true to life all the time. Passion cries for
deliverance. Let me out! What is the result?
Read the fable once more. Habit wants room. It
is given. Little by little it grows, until the miser-
able possessor of it stands aghast and powerless in
its overshadowing presence. What a lesson is here
that tens of thousands should learn this winter!
Teachers, now is your opportunity.

THE fashionable society of this city, during the
past two weeks, has been going crazy over the
youthful pianist, Josef Hoffmann. He is no doubt a
prodigy; so is blind Tom, and so was Tom Thumb,
and so was Jumbo, the big elephant. This young
Hoffmann is only about ten years old, and is without
a doubt a wonderful performer for one so young,
but this doesn't prove that he will be anything ex-
traordinary when he is forty. Many children have
astonished the public by their precocious perform-
ances, who have never shown anything great in
after life. It is an unfavorable sign to mature early.
Solidity is secured slowly. The sudden perfection
of a mushroom tokens its equally sudden decay.
Why don't the fashionable public expend some of its
superfluous cash and extra store of sympathy over
the plodding, dull, boys and girls who are not pre-
cocious. These common children will make the stay-
ing element of the next generation. Growth must
be natural and all-sided. The boy who is digging
away at his arithmetic or history this winter in some
unnoticed school-room, and with unyielding grit
sticks to his work, and knows he has got to, if he
gets along, such a boy will come out ahead in the
race of life. It isn't the brilliant, one-sided genius,
that carries off the palm of victory, but the moderate-
ly dull boy of good common sense and stick-to-it-
iveness, who does the work of life successfully.

IS it not a cause for alarm that our best colleges
are pouring into our schools thousands of young
men and women, without a month's study of the
history of education or an hour's thinking con-
cerning its philosophy? Our secondary schools
suffer even more than the primary, for in the pri-
mary often the simple, untaught girls of nature, get
nearest to her heart and so nearest the child, but the
college graduate knows too much to appreciate how
little the average boy or girl understands. He
doesn't remember his first painful steps, neither does
he appreciate the truth, that it is not the *how much*
but the *how* that educates. The usual fallacy under
which the unprofessional teacher labors is that his
success is measured by the number of facts his
pupils memorize, and the number of pages they are
made to go over. A thorough appreciation of
Lycurgus' system in Sparta, as well as the better
methods in Attica 400 B. C., would cure him of some
of his crude pedagogical hallucinations. He needs
to be rid of the notion that the methods of percent-
age can be applied to the measurement of educa-
tional success, and that all growing minds need the
same kinds and quantities of mental, moral, and
spiritual food. After failures, sad failures too! and
how many! he begins to apprehend the true aims
and ends of educational processes. Then he begins
to teach, then to study, then to get into his pupils'
hearts, then to know that of all artists none stand
nearer the great Eternal, than he who molds the
immortal part of our human tabernacle.

CLASS EDUCATION OR UNIVERSAL EDUCATION: WHICH?

The demand is made by several classes of people in our country for a division of the public school funds, and its distribution among the various classes, organizations, and sects found in our country. For example a certain organization has its peculiar views on the subject of temperance, and demands that not only shall nothing be taught in the schools contrary to its opinions, but that, to their children, its peculiar tenets shall only be broached. They are not satisfied with an omission of all reference to alcohol, but claim that it shall be obligatory on the teachers of their children to be in full sympathy with them in their views, and that to secure this end, they shall be appointed by their own class, or society. Let us see how this would work if practically attempted.

1. Such a division would not improve the character of the instruction now given in the branches studied in our common schools. No one claims this, as far as we know.

2. If such a division should be made, it would bring all the power of the government to bear upon all the members of each class, compelling them to support their own schools. Of this there can be no doubt.

It would also invoke the power of the government to compel all parents, belonging to each class, to send their children to their own class schools. Not only must all the money of each class go to support their own schools, but all the children of each class must attend their own schools. The children must follow the money of their parents.

3. It would follow, as a consequence, that if children of one class could not attend a school of another class that the small classes, or sects, or those who might belong to no class or sect at all, would be in a bad predicament. Being few in numbers, they would receive little money—not enough to build school-houses of decent capacity, or employ teachers of much account. There could be little classification, and but a meagre curriculum.

4. Such a division would intensify class distinctions and partisan feelings, and rank all children, as soon as they could go to the kindergarten in one of the many organizations, or sects. Presbyterian, Hebrew, Methodist, Unitarian, Universalist, Agnostic, and Catholic boys and girls—infants some of them—would be continually jostling each other in the streets; with what consequences can easily be imagined. May our eyes never see that day! Let us live in peace, brothers, in one great family, united in upholding our common interests, and laboring for the common good of our beloved land. Let us hold to our peculiar views, and teach them to our children in our own way, but let us not invoke the aid of the state to intensify class distinctions and create bitterness among brethren.

IDEALS.

In a late issue our readers noticed an editorial on "Ideals." Recently President McCosh preached in this city, and in the course of his sermon made the following excellent remarks. This extract is well worthy of a careful reading:

"All actual excellence, whether earthly or spiritual, has been attained by the mind keeping before it and dwelling upon the ideas of the great, the good, the beautiful, the grand, the perfect. The tradesmen and mechanic reach the highest eminence by never allowing themselves to rest till they can produce the most finished specimens of their particular craft. The painter and sculptor travel to distant lands that they may see, and, as it were, fill their eye and mind with the sight of the most beautiful models of their art. Poets had their yet undiscovered genius awakened into life as they contemplated some of the grandest of Nature's scenes, or as they listened to the strains of other poets the spirit of inspiration has descended upon them. The soldier's spirit has been aroused, more, than even by the stirring sounds of the war trumpet, by the record of the courage and heroism of other warriors. The fervor of one patriot has been created as he listened to the burning words of another patriot, and many a martyr's seal has been kindled at the funeral pile of other martyrs. In this way fathers have handed down their virtues to their children, and those who could leave their offspring no other have in their example left them the very richest legacy, and the deeds of those who perform great achievements have lived far longer than those who do them, and go down from one generation to another."

"The best" has been the motive of tens of thousands who have achieved success. If the present is not as good as the past the present is not as good as it ought to be. We cannot content ourselves in doing as well as yesterday, we must do better or we are not living up to the dignity of our manhood. The moment we are satisfied we stop growing. It is for this cause that dissatisfaction

has been the spur to progress. Press forward, dear reader. Do better to-morrow than yesterday!

EDITORIAL CORRESPONDENCE.

The city of Omaha seems well provided with schools. There is one high school with a fine building, twelve grammar schools, and nineteen small schools.

Some of the best of the grammar school buildings are very substantial; the later ones cost \$20,000 each; the high school buildings cost \$225,000. Manual training has been in operation two years and with success: it is being continued. Seventy-nine pupils were taught sewing, cooking, and light carpentry, and turning; about one and a half hours per day are spent in the shop. The cost per pupil is about \$18 apart from tools, etc. After a year's trial girls were allowed to join the class. These pupils are reported to have done excellent work in the usual studies of their classes.

Supt. Henry M. James has been in office here five years; he was assistant superintendent in Cleveland, Ohio. I should judge him to be well fitted for his post; hearty, energetic, clear-headed, and able to develop the school system in accordance with the needs of the children, and that is saying a good deal.

Prof. Homer P. Lewis is principal of the high school, and is a popular and able man. One of his assistants is Prof. Henshaw, a graduate of Hobart College, Geneva, New York, and an enthusiastic classical teacher. Several citizens of Omaha told me that the school is held in high esteem. There were public exercises in progress in the building and many happy faces were seen listening to the declamations and recitations. The music sounded very charming.

It appears that the principals of the grammar schools are all women, only three men being employed—the principal of the high school and his two assistants.

The number of school children in Nebraska is 279,982; the money the state gives to public schools is about \$335,000. The schools of Omaha will cost about \$250,000 this year; of this \$23,000 comes from the state fund. The money that is paid into the treasury for licenses for liquor saloons and breweries in this state is devoted to the support of schools; in Omaha this amounted to \$200,000. The charge for a license for a saloon is \$1,000; this diminishes the number of saloons and benefits the children at the same time.

The view from the hill on which the high school stands is a superb one and well worth a journey from a distance. To the east is spread out the great Missouri, across are seen the bluffs of Iowa, far to the west stretch the billows of the vast prairie. The ride hither was over the famous "Burlington Route." I was surprised at the smoothness of the road-bed. I am told this road is noted for the excellence of its equipment. I shall pursue the same route to-morrow to Denver. The excursion ticket enables one to select a different route in returning, so that I shall be able to point out many things the teachers may see who take the "Educational Excursion" next summer.

For many reasons, it will be to many the only time they will ever see California, so that I believe they will be glad of the stray notes I jot down, even if they find I think the school-house the most important thing in the town. I shall not undertake to describe the landscape, but to point out what seem to me the things that will educate and help the teacher in her work.

A. M. K.

AN EXAMPLE OF WRONG INFERENCE.

It is reported that a teacher in one of our public schools, wished to impress upon the minds of her pupils the circumstance from which the Ægean Sea received its name; so she told them the story of Ægeus watching on the cliffs by the sea for the return of his son Theseus, who had gone forth to slay the Minotaur. "It was agreed," said the teacher, "that if Theseus was victorious in his encounter with the monster, a white sail should be hoisted on his returning vessel, but if he had been slain, a black sail should be raised. By some misapprehension of this agreement, the sailors on board the vessel of the conquering hero raised the black sail, and Ægeus, thinking his beloved son had been destroyed, and giving way to the grief that beset him, threw himself into the sea, which was thereafter named?"—and the teacher paused inquiringly for some bright scholar to draw the proper inference, and give the name—

"The Dead Sea!" piped a little girl on the front bench; and then a hush came over that schoolroom that was painful.

AN INCIDENT IN SCHOOL GOVERNMENT. (7)

As the lines of pupils in a class-room of a well-known school were passing around the room, a little girl took from the blackboard ledge a bit of chalk. The teacher, observing it, in stern tones ordered the child to leave the room. When all were seated, the child was recalled, and the teacher said: "Children I have a very grave offense to tell you of. *This girl is a thief.*" The effect of this cruel and unexpected charge can be imagined. The child who had taken the chalk burst into tears, asserting that she "meant to put it back," and she "didn't intend to steal it;" the rest of the children were much excited. Many crying from sympathy, and some exceedingly angry. Having produced this startling effect the teacher proceeded to lecture the class on the enormity of the crime of stealing, and how people who steal are shunned, etc., etc., with never a word of earnest, personal application which—the crime been really committed—would have been the main point to be dwelt upon. What was accomplished? A most unwise act on the part of the teacher, which will lose for her more respect in this class than she can ever regain; a bitter feeling in the family of the child, much persecution for the little one on the part of unkind pupils; the soul of a child discouraged and disheartened for years perhaps. What a record of gain! It weighs as nothing in view of the "might-have-been" act of a wise teacher, who could have said: "I believe you, dear." Our courts of justice are more merciful than this. They give a person at least a chance to prove his innocence.

LONGFELLOW AND THE CHILDREN.

The great poet was always fond of children. He loved not only those of his own family, but all the little folks; and there were many children who visited him often, and were always entertained by Mr. Longfellow with great kindness. Mrs. Annie Fields gives us an extract from her husband's diary, which tells how one of the poet's small friends tried to show his affections in a practical way:

"I remember there was one little boy of whom he was very fond, and who came often to see him. One day the child looked earnestly at the long rows of books in the library, and at length asked, 'Have you Jack, the Giant-Killer?' Longfellow was obliged to confess that his library did not contain that venerated volume. The little fellow looked very sorry, and presently slipped down from the poet's knee and went away; but the next morning Longfellow saw him coming up the walk with something tightly clasped in his little fist. The child had brought two cents, with which Longfellow was to, buy a 'Jack, the Giant-Killer' of his own."

WHAT MANUAL TRAINING IN NEW YORK MEANS.

City Superintendent John Jasper, of this city, said to a *World* reporter: "People think the proposed adoption of manual instruction means that we are going to start a lot of trade schools. It doesn't. We propose to teach the philosophy of trades. We will teach the girls why the human body needs food, and after they have laid a scientific basis for knowledge of cooking we will teach them to cook. A fourth-grade grammar school girl will be able to take the measure of her sister and cut and fit a dress for her. The technical part of these studies will be the last part to learn. Long before little Susie can compute interest she will be making Mother Hubbards for all the neighbors' children, and Johnnie, who isn't old enough for trousers, will so have mastered the object lessons that he will be able to take a pair of scissors and develop cubes and all fantastic shapes from the skirts of his father's Sunday coat. Other studies will be simplified to make room for the manual branches. There will be no more arithmetical puzzles. History will be a pleasant reading lesson, not a feat in machine memory. The geography of the United States will be given more show and that of Oceanica less."

"The system of manual instruction we have in view will differ from that of other cities in that instead of having separate buildings to which scholars may go from the public schools certain hours in the day, we will graft the system upon the public school system. Already there are 12,000 children out of school who ought to be in, but there isn't room for them. This system will increase their desire to attend. After the system has been in operation for some time it will not necessitate a great increase in the force of teachers, or the employing of many mechanics or special teachers."

BRIEF ITEMS.

THE program of the third annual meeting of the North Nebraska Teachers' Association, held at Blair, Dec. 27-29, arrived too late for publication last week. We much regret it, for a most admirable and attractive list of topics was given.

A TORONTO newspaper is authority for the statement that \$150 a year is the average salary offered a teacher in the Province of Quebec. If the quality of teaching in the Province is as poor as the pay, the schools cannot be worth much.

NOTICE the first installment of the new New York City Course of Study in this issue; more to follow.

MR. MOHINI M. CHATTERJEE, has returned to India. He will reside at Benares, and devote himself to educational work.

AN exhaustive review of the old year in this number will be found invaluable for school review. It will be completed next week.

A NOTICE of our recent visit to the New Jersey State Teachers' Association is unavoidably crowded out this week. A full notice of the proceedings will appear in our next issue. They reached us too late for this.

CONSIDERABLE space in our next number will be occupied with accounts of the recent meetings of several State Teachers' Associations.

THE Potsdam New York State Normal School is prospering under the efficient management of Principal E. H. Cook. Its attendance is larger than ever before in its history.

DURING our recent visit to the Luzerne County Teachers' Institute, we met for the first time our Pa. state correspondent, Supt. Will S. Monroe, of Naticoke. Supt. Monroe is one of the rising teachers of the Keystone state. He is self-educated, a holder of a state certificate, has good health, is a successful teacher, and possesses a good stock of common sense. The country will hear from him.

SENATOR BLAIR'S Educational bill has been reported with the unanimous indorsement of the Committee on Education. The Senate is right on this question, but the House is not quite as reliable.

DR. CHARLES H. VERRILL, principal of the Delaware Literary Institute, Frank'in, N. Y., recently passed through this city on his way home as conductor of the Monroe Co. Institute, Pennsylvania. Dr. Verrill was formerly principal of the State Normal School, Mansfield, Pa., and has been identified with institute, normal, and academic work for many years both in New York and Pennsylvania. He is highly respected by his educational associates, as a man thoroughly qualified for, and actually engaged in, the best kind of pedagogical work.

JANUARY TREASURE-TROVE will delight the heart of every teacher who is looking for a magazine that will give scholars the brightest entertainment, and the truest education combined. "Shakespeare at School," is treated by Prof. W. J. Rolfe, the eminent Shakespearean critic. The history and progress of "The Great North-west," is outlined in "Our Own Land" series. In "Miss Columbia's Diary," the wars of the "Indian Hero," Pontiac, are described by Bertha Watson. A biography of James T. Fields, "The Great Publisher" and famous literary man is contributed by Margaret Brooks, with selections from his writings. Henry G. Hanchett, M. D., in his "Letters from the Doctor," explains in his pleasant, original, and simple fashion, the physiology of "Intigestion." In "The Blue-Coats of London," Alice M. Kellogg describes a peculiar institution which will amuse American school boys. The "Prize-Pictures," and "Twice-Told Tales," are particularly welcome as composition aids which the pupils seek, if possible, with even more avidity than their teachers. The burden of many letters from the teachers is: "My boys and girls are eager to write compositions now when they used to hate the work."

The number is over-flowing with beautiful, artistic portraits and illustrations.



HON. J. L. PICKARD, LL. D.

Among the men of the Northwest, who, during the last thirty years, have led in the educational movements of the country, no one has become more widely or more favorably known than Dr. Pickard, ex-President of the State University of Iowa.

Born March 17, 1824, in Rowley, Essex County, Massachusetts, his boyhood was spent on his father's farm, where he formed habits of industry, temperance, and economy, which led to subsequent success in life. He graduated from Bowdoin College in 1844, and took charge of the Academy at North Conway, New Hampshire for about a year. Then he concluded to "go west," and, after a short stay at Elizabeth, Jo Daviess county, Illinois, he went to Platteville, Grant county, Wisconsin, where, in November, 1846, he took charge of an Academy, then just organized, and which he conducted for the next thirteen years.

At this time Mr. Pickard was a young man of commanding presence, of strong and vigorous frame, with indomitable pluck and energy. Added to these was an innate love of his profession and his fellow-man. Under his able and wise management the academy became widely known as a preparatory school that had no equal in the West, and few, if any, superiors in the East. Students were attracted from all parts of the country and received there the elements of a sound practical education which fitted them to meet the requirements of good citizenship. It is said of him that, by precept and example, he so thoroughly interwove his very nature with that of his pupils as to make those recognizable as "Pickard boys or girls," who had for any reasonable length of time been under his instruction.

The school which opened with five pupils increased to an attendance of more than three hundred, and more than eleven hundred were under his instruction during the thirteen years of his stay. To him more than to any other man are due the effort and the interest that led to the establishment of a State Normal School at Platteville, which occupies the same site as the little school of more than forty years ago.

In 1859 Mr. Pickard accepted a nomination for the office of Superintendent of Public Instruction of Wisconsin in the hope that his health, which had been impaired by hard and protracted mental labor, might be benefited by less sedentary occupation and an active out-of-doors life. When he entered upon his official duties, January 1, 1860, it was with the intention of resuming his former position at the expiration of his term of office, but dimmed eyesight led him to abandon all thoughts of a return to the school-room. His administration of the public school affairs of the state was remarkably successful, and he was re-elected in 1861 and again in 1863. The salary of this office was at that time only \$1000, and feeling it to be a duty which he owed to his family, in 1864 he accepted the superintendency of the public schools of Chicago and resigned the office he had so acceptably filled in Wisconsin. This closed his eighteen years of educational work in the state, which commenced while it was a territory, during which time he was foremost in every advance made by the schools of the state. The organization of the State Teachers' Association, which has shaped the legislation in regard to education for more than thirty years, is largely due

to his foresight and energy. The establishment of the Wisconsin Journal of Education was in part the result of his efforts to reach and influence the school officers of the state. During his state superintendency, the institutes were established on a permanent basis, and such encouragement was afforded schools that prepared their students for teaching as led to the magnificent normal school system of the state. It is remarkable that every educational enterprise that he helped to inaugurate has grown strong and vigorous with the passing years.

In 1866 the Regents of the University of Wisconsin elected him president of that institution, but he did not feel that he could leave his work in Chicago so soon after entering upon it, and therefore declined to accept. During the thirteen years he was in charge of the Chicago schools the attendance was quadrupled, and their efficiency was correspondingly increased. Feeling a need of rest and of freedom from the responsibility and perplexity connected with his position, he resigned this office in 1877. The year following was given to study, lecturing, and rest. It had long been his wish to spend a year in Europe, in the interests of education, and he was making preparations for the trip, when, in 1878, he was elected to the Presidency of the State University of Iowa. Accepting the position, he held it until last summer, when he resigned to spend the remainder of his years in private life.

Last August one hundred and twenty five of the old students came from California, Illinois, Nebraska, Iowa, Kansas, Pennsylvania, Minnesota and Wisconsin, to Platteville for a reunion with their honored instructor and paid him many heartfelt tributes.

During his term of office he conferred the honors of the State University upon 1546 graduates, more than five-eighths of the alumni of the institution. He leaves it in a flourishing condition; and now, with the benedictions of Wisconsin, Illinois, and Iowa following him he seeks the joys of home and the happiness that is the reward of his well spent years.

Mr. Pickard was married August 24, 1847, at Newark, New Jersey, to Cornelia Van Cleve Woodhull, who was born in Brooklyn, New York, July 12, 1825.

A MORNING WITH ASST. SUPERINTENDENT CALKINS, OF NEW YORK CITY.

Report of examinations made in the primary department of one of the New York City schools. By E. L. Benedict.

"Good morning Miss——; Good morning, boys," said the Superintendent as he entered the room, in a way that made every boy's eyes shine as he answered, "Good morning, sir."

Then for a moment he consulted a card upon the teacher's desk that told him how long she had had the class, how many of the boys had entered at the beginning of the term, how many had come in later, and various other details. This showed what the teacher should be held responsible for, and what not.

When ready to proceed to business the examiner began in an easy, familiar manner, "Well boys, what shall we talk about this morning?"

The boys, thus consulted, considered a moment and then several answered, "Geography."

"Very well," said the superintendent, "tell something about geography." A boy rose and said that "geography tells about the earth."

"What can you tell?" pointing to another boy.

"Columbus discovered America," said this boy ignoring the importance of sticking to the text.

"Another boy may tell something."

"De Soto discovered the Mississippi was the next answer, still further from the mark."

"But I thought we were going to talk about geography. Does geography tell you about Columbus and De Soto?"

"No, sir, geography tells about continents, islands, and peninsulas."

"Very well let us hear about them."

The boy defined a continent, and another an island, and one a peninsula.

"What is an isthmus made of?"

"Land," was the ready response.

"A strait?"

"Water."

"Did you ever hear of a mountain?"

"Yes, sir," and the high elevation of land was duly defined.

"Well, what is a hill?"

"A low elevation of land."

"But what do you mean by a low elevation of land?"

This was an unexpected question, but it did not take long for them to come to the conclusion that elevated meant "high up," like the elevated road, and a hill was land "high up," but not as high as a mountain.

"Suppose we should find some land where there were no hills or mountains, and no trees, what would you call it?"

Some said, "Prairie;" some said, "Desert."

"But suppose you could find no grass nor trees on it, then what would you call it?"

"A desert."

"Do you know the name of a country where there is a desert?"

"Yes, sir, in Africa."

"And what do they call it?"

"The great desert, Sahara."

"What is the difference between an ocean and a bay?"

"An ocean is larger than a bay."

"What is the difference between a gulf and a bay?"

One knowing boy said, "No difference."

"Well, why is one called a gulf and one a bay?"

This was more than they could answer, and the superintendent put them at ease by saying he couldn't answer that himself. Taking a large sheet of manilla paper about the weight of thin note paper, Supt. Calkins crumpled it up and laid it, partially spread out on the desk. Then he told the boys to come up, one at a time and point out some part of it that might represent a mountain, a valley, a hill, a good place for a river, or a lake, a place where a river could run through. A cut in the mountain, he explained to them was called a *canyon*. In each case he asked them to tell why they selected as they did, and the answers indicated some originality and no small intelligence on the subject.

"I've heard something about different countries and the people who live in them—what can you tell us about them?" was the next question, turning from paper geography to actual geography again.

"China is where the Chinese live." "Tea grows in China."

"Russia is where the Russians live."

"The Eskimos live up North where it is cold."

"Who has ever heard anything about Egypt?"

"Egypt is where the desert is."

"Well, who has ever seen anything that came from Egypt?"

This was another unexpected question, and for a moment they were puzzled.

"Who has ever seen anything in Central Park that came from Egypt?"

"The elephant," "The kangaroo," "The hippopotamus," were instantly remembered, and honored with enthusiastic mention, but the answers did not seem to give entire satisfaction.

Then one boy mentioned a big stone.

"Where did you see the big stone?"

"In front of the Metropolitan Museum."

"Oh, the Obelisk!" "Cleopatra's needle," and henceforth the renowned stone will no doubt be associated in their minds with Egypt.

"But how was this stone brought here," continued the inquisitive superintendent, "by boat or by rail?"

"By boat"—a little doubtfully.

"What makes you think so?"

"Because Egypt is on the other side of the ocean."

"What ocean?"

This was something they had not thought of before, and it took some time to get all the oceans in their proper places.

"How many of you have ever seen a part of the Atlantic ocean?" was the next question after the class had got its bearings again.

"Where did you see it?"

"Down to Coney Island."

Leaving the subject of geography, Supt. Calkins told the boys to look at the window and tell anything that they knew about it, or anything that they could see.

One boy said glass was made out of sand.

"Is that something you saw or something you have heard?"

"Something I have heard."

"Transparent" and "brittle" were mentioned as words suggested by the glass.

"How do you know glass is brittle?"

"Because it will break easily."

"Well, is that something that you have seen or something that you have heard?"

The boy said it was something he had heard, but the others smiled knowingly, and some confessed that they had seen glass break; in fact, that they had broken some themselves.

"What does that teach you about glass?"

"To be careful with it," answered the boys, drawing their own moral.

"Well, tell us more about glass?"

"It is a solid."

"Why do you say that?"

"Because it keeps its own shape."

"Do you know any more about it?"

"Glass is fusible."

"How do you know that?"

"Have seen it melt."

After some further talk about glass and water (a glass of water was placed before the class), Supt. Calkins passed on to the reading lesson. The teacher said the class had only gone as far as the sixtieth page, whereupon he immediately told them to turn to the eighty-second page. Fearing he had misunderstood her, the teacher again told him the number of the page to which she had taken them, but it did not alter his direction. After the exercise was over he explained to her that his object was not to see how well they could read what they had been taught, but that he wished to test their ability to grasp the thought in a new lesson.

When he had finished, the Superintendent asked the boys if they didn't think he had stayed long enough, whereupon they all answered no, so heartily that it showed they meant it. They liked the geography made with paper; and they liked questions that made them think, all of which showed that they had had enough thinking to do before to appreciate the exercise.

NOTE.—The same method was employed in the examinations in other subjects which are not reported for want of room.

MANUAL TRAINING.

By DR. G. VON TAUBE, of the Gramercy Park Training School, of New York City.

ARGUED BY THE LUNY DEBATING CLUB.

[CONTINUED.]

Analyzing our recent advance, we find it the outcome of man's increased dominion over nature and her forces.

An isolated few of the many millions of our busy squabbling, fighting, buying, selling, speculating humanity made discoveries in *their garrets*. Although generally not feasted with more than a very hard crust, these few donated millions of millions to the human brotherhood.

Then the public saw an interest in it, and the rich speculators found a new source of income. Nature has been found to return high profits and interest when duly approached.

Still the number of those who would turn their energies towards that eternal source is very small, compared with the array of our commercial battalions. Why? Because of the lack of training.

It is all very well abstractly to speak about the aim of education, as consisting in the knowledge of how to live; it sounds well enough, but to be *fit and able to live at all, to subsist* will always go ahead. To be fit to exist will always remain the first consideration, that cannot be discarded, and ought to be specially cared for in education. You will grant gentlemen that most of our old routine schools trained up their man successfully to fight his own; fight he must as a result of his very existence, but with whom? With his fellow-men, old education says. *With nature and her forces*, is the dictum of our progressive departure. Let us have but a quarter of brain power and intellect diverged from the various overflowing professions and occupations; let them use the same mental efforts in scientific and technical researches, and this 25% by their bountiful results wrenched from nature, will diminish the grabbing and choking activity of the remainder of our society.

Nature, and not man is the antagonist of man; and our educational training will be at its height only then, when fully considering this proposition.

Now ladies and gentlemen, our innovation as proposed is just the thing wanted, it leads directly to the above purpose, and therefore it ought to be more seriously considered, than it was by you, worthy conservationists. Any general measure cannot be logically approached with side issues, unless you are able to trace them all, and this is more than you claim for yourselves, Erratus. Answering your special arguments, I have to remark, that contrary to the method of your own school of classics, you did not pause long enough on the *nomenclature*, and that this is the chief reason of your difficulties in trying to understand the subject.

Thus manual and industrial training are different from each other as well in purpose and aim, as in method and practice.

Manual training is the experimental adjunct of the objective grades of teaching. Following up the kindergarten, it co-ordinates and harmonizes the use of perceptions, there developed. It completes the mastery of the idea, through the working out of the idea, and synthetic in its methods, it develops the imaginative and constructive faculties of the mind. It is a general educational measure, a pedagogical necessity of our times, indispensable in every school-room, whereas, *industrial education* aims at a mastery of the elements of natural science applied. It is an attempt to concentrate in a practical course, the rudiments of technological knowledge, founded at the basis of the many industrial branches. Its relation to pedagogics proper is only in its method of dealing with natural sciences; otherwise its true origin, and its claim as a social necessity is rather economic. The marrow of any country is industry, and we cannot forget that, considering the absence of regular apprenticeship in the moon, it is of the greatest importance to our lunny welfare, eminently based on industry, to provide for the education of a superior and skilled workingman. Thus manual training is found to precede industrial and is preceded itself by the kindergarten. If attempting industrial work it will only miss its due place alongside of general studies, and most assuredly accomplish nothing in the industrial line. Industrial training again may, as we have already noticed, lead to a general technological, practical course for the workingman, or aim higher and become a fit and most excellent preparation for a scientific technical career.

In our analysis of the wants of the laboring classes, we cannot but sadly remark that the laborer is becoming more and more a slave, not of capital but of *the machine*. Industrial training is what we recommend as the means of release. It will give him once more the mastery over the automaton, by making him understand machinery. Elements of mechanics practically taught, the three dimensions, shorthand, drawing, and the elements of chemical knowledge in reference to materials of construction will accomplish the feat, without eliminating other general branches of instruction. Our lunny industrial schools will then have supplied a producing power independent of changes in the processes of manufacture and labor competition. If the question should be argued about the expediency of introducing technical training in the public schools, claiming for instance, that every graduate will become a special tradesman, I should answer, that a very easy compromise can be effected by having manual training a general measure in all primary schools, and industrial training the feature of a number only of grammar grades. It appears to me, gentlemen, that our public institutions of which we boast so much in the moon have up to now sorely missed their aim.

We have had the unfortunate alternative, of either remaining thoroughly ignorant and illiterate, to learn a trade as well as we could, losing much time through lack of system and subserviency of instruction to the business interests of a boss mechanic; or of going to our seats of public learning, losing a chance of a profession, that would secure us at least a decent living, while we acquired but some general smattering of learning, not available to earn an honest penny.

A declamation, therefore, about the ideal "How to live," while leaving out of sight the "To be or not to be," appears to me like putting the cart before the horse, and socially speaking, cutting our own throats by educating future ringleaders, political anarchists, and general expediency men.

There is but little morality in misery, and if our civilization must condemn a vast number of our population to a lot very akin to slavery, then, indeed, it is a failure.

Our equality is a bitter irony if no chance is given to our young citizens to do the best in life. Knowledge is the requisite for it, and practical knowledge too, as demanded in our times, and such we are in duty bound to give, if our democratic traditions are to be kept.

The change recommended in the curriculum does not, furthermore, exclude one's possibility either of acquiring general knowledge or entering upon a collegiate course. All we want is simply a certain number of institutions that would give the adequate technical preparation found so important nowadays. The option would be left with parents and pupils. The above, Erratus, will probably be satisfactory in answering your considerations of general usefulness. Now as to the development of perceptions. Here, Erratus, thou art right: we differ in the premises entirely. It is true we consider human

mind a material that can be worked upon successfully. It is true that we analyze it as thoroughly as modern science allows, although we do not disclaim the power of inheritance. If we did not so consider mind, our task would be a very hopeless one; we should find ourselves in the position, say, of a shoemaker bound to make a pair of boots, without knowing the first thing about leather. You asserted your unwillingness to dwell under a roof, constructed by a (manual training) pupil (industrial training was the proper name to use) but I feel quite certain that you would reject also the work of my shoemaker. If, nevertheless, instead of leather spoiled, you deal with the noblest part of our children, their brains and hearts, then ignorance of the material you work with, seems to become rather a virtue with you than otherwise.

You are satisfied with that great and melancholy phrase of "natural gifts or defects" that covers so many of your own educational crimes.

THE SCHOOL-ROOM.

The object of this department is to disseminate good methods by the suggestions of those who practice them in both ungraded and graded schools. The devices here explained are not always original with the contributors, nor is it necessary they should be.

THE NEW COURSE OF STUDY IN THE NEW YORK CITY SCHOOLS.

THE SIXTH GRADE COURSE.

1. LANGUAGE LESSONS.—*Reading*.—Familiar words, phrases, and simple sentences (from blackboard, charts, etc.); *Spelling*, familiar words from dictation; lessons on the obvious parts and common uses of familiar objects; also on colors.

2. FORM AND DRAWING.—*Form*.—Sphere, cube, square, oblong; position of straight lines—vertical, horizontal, oblique; angles—right, acute, obtuse; surface, face, edge.

DRAWING.—Straight lines—vertical, horizontal, oblique; letters composed of straight lines; angles—right, acute, obtuse; representing (with straight lines), positions of strings, sticks, and edges; square and oblong faces of solids; squares and oblongs from stick-laying.

NUMBER.—Counting by ones to 100; by twos and threes to 30; also, counting backward by ones from 10; adding by ones, twos, and threes mingled to 20; numbers to be read to 100 and written to 30.

WRITING.—Short words (from copies on blackboard or chart.)

VOCAL MUSIC.—Simple exercises in singing, to train the pupils in the use of musical sounds.

MANUAL FOR THE SIXTH GRADE.

FORM AND DRAWING.—*Plan of Instruction*.—Develop conceptions of form through seeing objects, handling objects, clay modeling, stick laying, etc. Represent conceptions of objects by clay modeling, paper folding, and drawing. Teach a child how to see an object before asking him to tell what he sees in it. Telling the child what to see is not the best way to teach him how to see. The child may be told what to do with an object as a means of leading him to discover some form or quality of it which ought to receive his careful attention, that he may see and know some essential feature of it; but he should not be told something to be memorized and recited about the object.

FIRST SERIES OF LESSONS. TIME, TWO MONTHS.—(Four or five lessons per week—20 to 30 minutes each.)

FORM.—*Spheres*.—Pupils to hold spheres with thumb and fingers of one hand; with thumb and fingers of both hands; to roll the sphere in one hand; to roll it between the hands; to notice that it is round every way and will roll every way. Teach the pupils to make spheres from clay, rolling them rapidly every way between the hands. Teach name, sphere.

LOCATION.—Lead the pupils to observe differences in the location of objects, and to apply the terms used to indicate the place of objects; as on, under, above, below, in front of, back of, by the side of, in the middle of, etc.

These exercises may be conducted by means of objects on the desks or on slates.

POSITION.—The teacher to hold a pointer or a long splint in several positions; as, vertical, horizontal, oblique, and to train the pupils to hold splints in the same positions.

Repeat these positions in the same order two or three times; then repeat them in a different order, until the pupils can correctly and readily represent the positions and name them.

Pupils are to use the sticks in forming letters that are composed of straight lines.

DRAWING.—*Lines*.—Hold a string on or near the blackboard, vertically; show how to represent the string by drawing a line on the blackboard; pupils to draw the line on their slates, holding them in a vertical position. Hold the string horizontally; show how to represent it in this position by a line; pupils to draw the line.

Repeat the holding of the string in the positions already named, and require the pupils to draw lines, representing each position several times. Teach the name of each position.

When this lesson in drawing is repeated, let two or more pupils hold strings in these positions, and the class draw the representing lines on their slates.

Each line should be drawn with free movement several times, to secure facility of execution.

Let the pupils draw letters that are formed of straight lines, and tell the positions of each line.

N. B. Teach the pupils how to sit, how to hold the slate and pencil (pencil to be held at right angles with the line drawn); also teach how to move the hand and the arm.

SECOND SERIES OF LESSONS—TIME, TWO MONTHS.

FORM.—*Cubes*.—Pupils to hold cubes in the same manner as they hold spheres. Lead them to observe the surface of the cube, its faces; their shape, their number; that all the faces are alike; then to observe its edges, its corners; also to notice that the cube will not roll like the sphere, but that it can be made to slide on a side.

Request the pupils to make spheres from clay, then to flatten the spheres on opposite sides, and thus to form cubes.

Repeat this operation of making the cube, two or three times during the first lessons.

Teach the name, cube, and the use of the terms, surface, face, and edge.

LOCATION.—Repeat the exercises for location as in the first series, using both the sphere and the cube, and teach additional terms of location; as, left side, right side, upper, lower, upper left, upper right, lower left, etc. (In this grade use the term corners.)

ANGLES.—Teacher to hold two long splints or pencils so as to represent a square corner, and to train the pupils to hold two splints so as to represent it. Teach the name of the corner. With the same objects teach the pupils to represent the sharp corner and blunt corner. Teach the name of each.

Repeat the representation of corners until the pupils can correctly and readily represent and name each corner.

DRAWING ANGLES.—Fasten one end of a string at the side or top of the blackboard; then hold the string by means of a pin or otherwise, so as to form a square corner; show how to represent it by drawing lines; pupils to draw the corner on their slates. Place the string so as to form a sharp corner; represent it by lines on the blackboard; pupils to draw the corner on their slates. Place the string so as to form a blunt corner; represent it by lines; pupils to draw this corner on their slates.

Repeat with string and with sticks the shape of these corners several times, and request the pupils to repeat on slates their representation of the corners.

FORM.—*Square*.—Review form, position of lines, shape of corners, etc. (use cube and sticks.)

Lead the pupils to observe a face of the cube; then to represent with sticks the sides and corners of the face.

Let them also represent all the faces of the cube, and count them. Teach the word square as the name of the shape of the faces of the cube.

DRAWING.—Require the pupils to draw lines on their slates to represent the positions of these edges of the cube which they can see without moving it or themselves; then request them to represent a face of the cube by drawing lines on their slates; also, to draw all the faces of it, and to count the squares.

FORM.—*Oblong*.—Place before the pupils a cube, a prism, sticks, and square and oblong pieces of paper. Lead them to compare the sides of a cube with the long sides of a square prism; then to represent the sides of each with sticks; then teach them to fold a square paper so as to represent an oblong. Teach the name oblong. Fold strips of paper to represent different corners, as, square, sharp, blunt.

DRAWING.—Require the pupils to draw the square and the oblong on slates. The lines forming the squares and oblongs should be long enough to secure free movement of the arm from three to five inches.

Lengths in inches are not required in this grade.

N. B. The pupils should practice drawing the lines

and corners with free movement, to secure facility of execution.

Continue the drawing until most of the pupils have acquired a good degree of facility in the operation.

A Review of the Year 1887.

FOR SCHOOL READING.

ENGINEERING.

A new bridge across the Hudson has been begun at Poughkeepsie, in which steel towers will be substituted for masonry. This will greatly diminish the pressure on the foundations.

A bridge a third longer, and about fifty feet higher than High Bridge, has been begun across the Harlem, at One Hundred and Eighty-first street, New York. It will require over 3,000 tons of steel and iron. An entirely new kind of machinery had to be constructed to handle the 403 immense segments of which the steel arches are composed.

A twelve-mile tunnel through the Simplon is projected. It would save three hours over the St. Gothard, and more over the Mount Cenis routes.

The Novorossisk tunnel through the Caucasus has been completed.

The old plan of Peter the Great, to divert the Oxus into the Caspian is being again revived.

The proposed tunnel under the English Channel, between France and England remains stationary; preliminary borings carried a few miles from each end, show that it is feasible, but each country seems to be afraid of military complications. Of this, there could be little danger, as the tunnel could be sufficiently flooded in five or six minutes to render it impassable.

Russia is engaged in the most extensive drainage enterprises ever undertaken. She is draining the Pinsk marshes near the borders of Galicia.

Landa's plan for fertilizing the African desert has been tried on a small scale in Tunis with great success. A proposition is being discussed for changing the temperature of the Atlantic States, by draining the Straits of Belle Isle, thus shutting out the cold wall of current that prevents the gulf stream from impinging upon our coast.

The effectiveness of oil for calming the waves at sea has become an established fact.

Progress on the Panama canal is discouraging. Over \$200,000,000 have been expended and several thousand lives lost. The great Hercules dredge which was expected to excavate 10,000 cubic meters daily, was run for six weeks, and the material thrown out, ran back nearly as fast as it was excavated.

Russia has arranged for the construction of the Perekop canal, in the Crimea, which will establish a direct route between the Don, the Black Sea, and the Sea of Azof, and enable the Russians to bring the coal and coke of the Don collieries to Black Sea ports, and undersell the English coal there, and at Constantinople.

SOCIAL.

Immigration to Castle Garden has increased 70,000 during the past year. "Five thousand one hundred and thirty-eight persons were naturalized, and 7,683 persons declared their intentions of becoming citizens."

One of the most distinguishing features of the year, is the immigration of a large number of Poles, Poles, and Russians.

The police of New York arrested 80,733 persons, of whom 61,589 were men and 19,144 women. Drunkenness and disorderly conduct were the principal offenses, with a fair sprinkling of petty and grand larceny, and violation of corporation ordinances, and a small proportion of arson, burglary, forgery, murder, and other graver offenses. In the lodging rooms of the various stations, 123,359 lodgers were accommodated, 68,196 being men 55,163 and women. A vast majority of the prisoners could read and write.

The record of Inspector Byrnes, of New York City, shows that more than \$500,000 worth of property stolen by thieves has been recovered and restored by him, and more than five hundred years of conviction secured by him for criminals. The property recovered was stolen mostly outside of the city, and recovered here. Inspector Byrnes has paid special attention to the money center. No thief is now allowed below the Astor House, and if one is seen, he is immediately escorted to the other side of the dead line. Where once bank messengers went attended by special officers and private detectives, now they go about freely carrying boxes of bonds and cash, and bags of coin without fear.

During the past year Inspector Byrnes has adopted a novel record by which he keeps a sort of chart of the movements of thieves. When a criminal is discharged from State prison his movements are recorded till he is again in prison. The record is most ingeniously kept in books of the Inspector's own invention.

It has been a year of many strikes, a large proportion of which ended in failure, and this, with the quarrels between different organizations, has made the year one of peculiar disaster to organized labor. The influence of orders has waned remarkably, and the number of active members has greatly decreased. The strike of freight handlers and Old Dominion hands in January, and the strike of carpet weavers in that month, were followed by others in great number, so that some considerable strikes were in progress in every month of the year.

INDUSTRIES.

The petroleum deposits of Lake Maracaibo, in Venezuela, are being opened up, and will prove a new rival to our petroleum. The new oil occupies a midway position between our crude oil and that of Russia, but the deposits have an immense advantage over both in being on the coast of the lake, which is practically an inlet of the sea, while those of the United States are distant nearly five hundred miles from the refineries, and those of Baku nearly six hundred miles from the port of Batoum. The Punjab petroleum wells are said to give promise of a good supply.

The United States is now the first steel-producing country. The new theatre being built in London for Edward Terry, has special precautions against fire, including two exits for each part of the house, the use of fire-proof paint on all woodwork, a complete system of hydrants, both before and behind the scenes, and a system of overhead sprinklers governed by valves at the stage door. The theatre itself is of concrete and iron. A committee of the Polytechnic Section of the American Institute, has been appointed for the purpose of investigating the causes of fires in theatres, and the means of their prevention and extinguishment.

The manufacture of artificial fuel from coal slack has been slowly but steadily developing.

SCIENCE.

Edison has started a new laboratory, of five large buildings, intended to be the largest and most complete in the world. Orders have been placed for the physical and chemical apparatus with the best makers in America and Europe. A quantity of every known substance on the globe has been ordered. Buildings and contents will cost \$180,000.

The largest refracting telescope in the world was recently made in Cleveland, for the Lick Observatory, Mount Hamilton, Cal. It is nearly 50 per cent. more powerful than any other yet made.

Photography is becoming a very useful agent in the detection of crime. Detective cameras make vest-button photography very easy. It has also been converted into a detective agent against counterfeits, the suspected coin or document being photographed of a greatly increased size, so that any erasure or defect can be detected. A new application of photography has been the reproduction of an author's valuable dictionary manuscript.

Recent experiences in the use of alcohol and spirits for medicinal purposes in high latitudes show beyond doubt, that capacity for work is not increased, nor powers of endurance to exposure and cold enhanced, by the use of alcohol.

It has been found that house-flies spread the germs of consumption by gorging themselves with the bacillus from the discharges of consumptives, and then convey it to articles of food.

Artificial clouds have been created for protecting vines from frost, near the Franco-German frontier. Liquid tar being ignited, large clouds of smoke arose, protecting the vines for two hours.

As a means of exterminating the rabbits, which have become a plague in Australia and New Zealand, and for the extermination of which the Australian Government has offered a large reward, M. Pasteur proposes to introduce chicken cholera among the animals by means of microbes. This disease, he says, would soon spread and eradicate the entire race of rabbits.

TRANSPORTATION.

A compound condensing tram-way locomotive has been produced in England. Liquid fuel for locomotives is being tried upon the Pennsylvania Railroad, upon the same system as that so successfully introduced by Urghart upon the Graze-Tsaritzinsky Railway, in Russia.

Heating passenger cars by other means than stoves has been the subject of very serious agitation and many experiments have been made with systems employing live steam from the locomotive; but the problem is as yet unsolved so far as the traveling public is concerned. A method proposed for heating railway cars provides the locomotive with an air-pump which forces air through a coil of copper pipe placed in the extension smoke-box, where it is heated, and whence it passes through pipes into the cars. One inventor proposes heating by gas.

The Mount Pilatus Railway, now in construction on the Lake of Lucerne, has the heaviest grade of any line yet known, being in some parts 480 per 1,000, or 1 in 2.08. The heaviest of the Rigi line is only 1 in 4. There are steel rack rails. The Swedish-Norwegian Railway is being rapidly constructed from the Bothnian Gulf to the west coast of Norway. Work on the Siberian main railway is progressing rapidly. At the rapid rate at which Russia has pushed her railway line to Orenburg, on the Asiatic frontier, there seems to be little doubt that the early part of the twentieth century will see a railway from St. Petersburg to Peking.

The Asia Minor Railway, connecting the Mediterranean with the Persian Gulf, has received imperial sanction to a great extent. But one railway has been authorized in China; the Kaiping, in the Pehtang coal fields. English rail-makers have been making tenders for large quantities of steel rails for China, which looks as though the Chinese were going to try a railway on a serious scale, and points to the necessity of American rail-makers working up this new field. The Japanese are rapidly building railways; mostly by German contractors. The Rangoon Railway is being extended to Mandalay, to connect India and Burmah. The Dutch government contemplates a railway in Sumatra, to develop the coal fields. The Paris, Lyons and Mediterranean Railway Company has introduced "tram-way trains," stopped whenever a passenger wishes to get in or out. The Northern and Western Railways of France, besides other Continental roads, have adopted them on certain lines.

The longest tram way in the world is that projected to connect a number of towns in Buenos Ayres. It will have a total length of 200 miles. Motive power, horses, Sleeping cars and cattle-cars will be run upon it. The proposed Hudson Bay Railroad seems to be a guaranteed accomplishment.

Russia has launched upon the Oxus steamers using petroleum as fuel. Some are proposing compressed gas as fuel for ocean steamers. Such a vessel as the Oregon requires storage for 3,000 tons of coal, fully half her actual tonnage. The number of steamers in the world is somewhat over ten thousand, having an aggregate burden of about ten and one-half million tons.

The past year has been very productive of fast boats. The *Now Then*, which is 85 feet long, has averaged twenty-four miles per hour for 170 miles—the fastest time for a steam vessel for any considerable distance on this side of the Atlantic. The *Umbria* has run from Queenstown to Fire Island in 6 days, 2 hours and 37 minutes, the fastest time on record. The Atlantic liners are developing in speed.

ELECTRICITY.

The Reckenzaun electric storage battery and motor are reported as working well on the roughest tracks in Philadelphia without hitch, and practically noiselessly. Mr. Edison is stated to be thinking up an electric street-railway system that will not require any overhead wires or underground conduits. In Berlin a company announces that in addition to light, it will be prepared to furnish electricity for heating purposes. This is accomplished by heating water by a resistance coil. In certain theatres electric stoves are employed for heating the curling-tongs.

A new electric launch, the *Victoria*, measures 90 feet in length by 11 1-2 feet beam. She will not only carry accumulators, but have her own dynamo. Electrical hauling plants have been tried with a view to demonstrating the practicability of this method of action to underground working, but so far without success.

Electric motors have been successfully used in calico printing works. Rowan, of Glasgow, has devised self-attaching machine tools actuated by electricity, as, for instance, riveting machines attached to the sides of iron-holds, by electro-magnets, thereby enabling closing up of the last rivets without anything to strike against; and caulking, chipping, drilling, tapping, and other tools upon the same self-attaching principle. The *Lay* traveling torpedo, which is controlled by electric wires, has been tried during the year, but not with any great degree of success.

Telegraphing without wires is again the subject of experiment. Telegraphing between vessels at sea, using water as the transmitting medium, is being experimented with by Edison and others. Train telegraphy is occupying the attention of inventors, two or three systems having been successfully tried on an experimental scale. In one the tin roofs of the cars are utilized as one leaf of a condenser, charged and discharged by a buzzer many hundred times a second; the other leaf is represented by a line of wire on low poles carried along the track as nearly as possible at an even distance from the track. The connections are the acme of simplicity.

Edison has propounded a method of procuring electricity by direct action of heat, substituting for mechanical motion in the armature molecular motion obtained by the direct action of heating and cooling agents. Experiments have been conducted concerning the practicability of dispersing smoke by electricity. An electric fire-damp indicator has been produced, the principle being that when a mixture of air and fire-damp has burned, the volume of the mixture is diminished in proportion to the amount of fire-damp. An electric signal trumpet, devised to warn or signal vessels, trains or tram-cars, can also be used as a Morse sounder. The electric welding of metals, discovered by Elihu Thompson, is one of the greatest novelties of the current year.

A method proposed for establishing telephonic communication between ships at sea, provides each vessel with an apparatus for producing sound under water. A system of military telephony tried in Belgium requires insulation up to one or two miles, speech being transmitted through a naked wire laid on the ground. The telautograph of Gray, reproducing a message telegraphically by a tracing point, either in ink or pencil, should, in certain circumstances, be an admirable supplement to the telephone.

INVENTIONS.

Suyers has proposed a means of communication of motion between bodies moving at different velocities, to take up the recoil of cannon, arrest a mine cage in case the rope breaks, prevent engine-racing in the event of a shaft breaking, prevent the clutch on a machine being thrown into gear with the motor, set a signal by a train in motion, automatically shut off steam on a locomotive, and automatically apply brakes so as to render a danger signal self-effective. The use of the siren in marine signaling is undergoing development. It leaves far behind it the cannon, the ordinary whistle, and the steam whistle.

The English have introduced metallic brake-pipe couplings as a substitute for rubber-hose pipes, ruptures of which have caused so many of the so-called failures of compressed air brakes. Each coupling has three linked joints.

There is now in use in the world the equivalent of 46,000,000 horse power in steam engines; 3,000,000 in locomotives. In engines other than locomotives the United States comes first, with 7,500,000 horse power; England next, 7,000,000; Germany, 4,500,000; France, 3,000,000; Austria, 1,500,000.

FINANCIAL.

The wheat collapse at Chicago in June caused the failure of many firms there, the collapse of the Fidelity Bank at Cincinnati, with several firms, and finally the stoppage of the San Francisco Board of Trade and the enforced reorganization of the Nevada Bank.

The domestic and the foreign trade of the country have both been affected unfavorably by extraordinary activity in speculation. In place of the excess of exports over imports amounting to \$50,000,000 in 1886, that excess has probably been about \$10,000,000 in 1887. Imports of gold however have exceeded exports in eleven months by \$34,000,000, while exports of silver have exceeded imports by \$8,700,000. Not far from \$125,000,000 of foreign capital has been transferred to this country during the year for speculation or permanent investment, some part of which is liable to be withdrawn in case of political or financial disturbance abroad, or depression of industries here.

Domestic trade has been larger on the whole than in any previous year, though swelled to an extent not easily measured by speculation. The unprecedented activity in real estate speculation during the first half of the year, which spread over a great part of the West and South, was followed by building operations never equaled in magnitude, and it has been estimated that not far from \$700,000,000 has been expended in new buildings. Building and speculation in corner lots and new manufacturing centers, and the construction of new railroads, were pushed at so rapid a rate during most of the year that some shrinkage was to be expected.

FOREIGN HISTORY.

The German election in March, by which Bismarck secured the passage of a seven years' army bill, disclosed an increase of 500,000 Socialists.

Considerable change has been made in the diplomatic relations of Germany, Russia, Austria, and France during the year. During the spring it became apparent that powerful agencies were at work both in Russia and France, to create irritation against Germany. Prince Bismarck, nettled by the attacks of the Moscow press, made a disclosure of the diplomacy of the war of 1877, showing that Russia had a secret understanding with Austria by which the latter was to occupy Bosnia in return for her neutrality during the campaign. The Chancellor's purpose was to demonstrate that Germany was not to be blamed if Russia were disappointed in the result of that war, since the commanding influence acquired by Austria in the Balkan was conferred by St. Petersburg diplomats. Having dealt the Pan-Slavists this blow, he confirmed his alliance with Austria after a conference with Count Kalnoky, and summoned the new Italian Premier, Signor Crispi, to a council by which Russia and French intrigues might be counteracted. As the Pan-Slavists' agitation against Germany increased, Prince Bismarck deliberately impaired the financial credit of the Russian Government and offered resistance to the Czar's policy of meddling intervention in Bulgaria. An improvement in the relations between the two courts resulted from the Czar's visit in Berlin during November, when certain letters which had exasperated the Czar were pronounced by Prince Bismarck to be forgeries. The Chancellor apparently has abandoned the policy of mediating between Austria and Russia, but expects to maintain a Continental coalition which will force the Czar to yield without war. Italy has taken Russia's place in the Triple League.

These altered relations have embittered Russia against Germany and Austria alike and led to an increase of the frontier forces on the side of Galicia. This massing of troops was pronounced in St. Petersburg to be a purely defensive measure, but it created a war panic in Vienna and Berlin during December and involved a corresponding necessity for stronger garrisons and more formidable fortresses. The chances are against a campaign in the spring.

Russian diplomacy has been worsted all the year in its struggle to regain prestige in Bulgaria. For six months the National Assembly pursued a cautious policy, sending a delegation to the European capitals and maintaining self-composure when the Czar successively nominated Prince Nicholas of Mingrelia and the Duke of Leuchtenberg as candidates for the throne. On July 3, they elected Prince Ferdinand, of Saxe-Coburg, Prince of Bulgaria. Russia pronounced his election invalid, and endeavored to induce the Porte to eject him, and threatened to denounce the Treaty of Berlin. France was markedly hostile to him, Austria and Italy were very cool, and Prince Bismarck rallied at him as an Orleanist intriguer; but Prince Ferdinand held his ground, and, forming a strong Ministry under Stambouloff, steadily improved his position. The Porte agreed to send Artin Effendi to Sophia in order to assume control of affairs, and to prepare the way for General Ernroth, whom Russia was anxious to appoint as Regent. Italy, England and Austria resisted this preposterous scheme and it was abandoned. In order to test the force of National opinion, elections were ordered in October, and these resulted in the return of 200 out of 292 seats for the Government. In consequence of these elections Count Kalnoky, in addressing the delegations on November 5, asserted that all danger of foreign interference has been warded off from Bulgaria, and that Prince Ferdinand had been legally elected, although this title had not been confirmed by the Powers.

The Italian government is in more friendly relations with the Vatican. Each party has made compromises. The tithes levied for the maintenance of parish priests have been abolished, by royal edict, and stipends are now paid from the budget of public worship. Premier Crispi has re-organized the Ministry, formed an alliance with Germany and Austria, against Russia, and proposes a great deal of reform legislation.

The French Chambers have dismissed from public service, two groups of ministers, two premiers and a president. The arrest of Schnaebere, a police commissary at Pagny, threatened for a fortnight to disturb the Republic's relations with Germany; but he was released by Prince Bismarck, when the illegality of the act was proved. Subsequently a French gamekeeper was killed by a German soldier on the frontier, but the excitement caused by the incident, was allayed by an expression of regret from the Berlin Foreign office, and the payment of a liberal indemnity to the widow.

(TO BE CONTINUED NEXT WEEK.)

SHORT INFORMATION LESSONS.

ENGLISH SPARROWS.—That English sparrows do not drive away other birds or molest them, is proved by the presence of other birds which go and come as the seasons change. The sparrow is a seed bird, and only destroys insects while rearing the young. Robins are great gluttons, whether as worm or as fruit eaters, and yet are regarded with favor because of their early coming and cheery songs. The sparrow is a very industrious bird. They live in cities and villages, and they have come to stay where they can best obtain food and shelter. Give the little sparrow a chance! He is more sinned against than sinning.

IRON.—We cannot do anything without iron. We cannot live without iron, for it is in the blood and gives us the rosy cheek of health. Iron machinery makes iron utensils and implements of all kinds, as pots, pans, saucepans, griddles, spades, rakes, scythes, mowing and cutting machines, plows, knives, forks, spoons, and nails and hammers. "Knives and forks are made of steel," says one. True, but steel is iron heated in charcoal till in some mysterious way it is changed into steel, which can be made sharper than the original iron. The carpenter cannot work at his wood without his chisel, plane, and hammer. The shoemaker must have his steel needle, awl, and shears. It is impossible to mention a single manufacture in which iron does not take a part.

THE KNIFE OF NAPOLEON BONAPARTE.—The knife once owned by the emperor Napoleon Bonaparte, is a superb specimen of the cutter's art. It weighs nearly a pound and the casket in which it reposes is quite as big as those used for meerschaum pipes. It contains, besides four blades, sixteen implements; among them a small saw, a button hook, a gimlet, a corkscrew, an awl, two lances, one for puncturing and the other for cutting, and a pair of scissors. The rim and holster of the knife are of solid gold. The handles are pearl, adorned with the imperial arms in gold, surmounted by the Napoleonic N.

CHINESE BEGGARS.—Beggars abound in China. There was in Peking a priest, whose cheeks had been pierced and the teeth knocked out, so that an iron rod, as large as one's middle finger, could be passed through, to project an inch or two beyond either cheek. An iron half-circle was hinged to each end of this and passed around the back of the priest's head. Attached to the half-circle was an iron chain, which was so long as to drag on the ground several feet behind him.

His business was to go from house to house, beating a small drum, asking help to repair a temple. Sympathy would be wasted on him. He was a "professional church-debt-lifter," who had monthly wages and a commission on his collections—and the rod and chain were his stock in trade.

SOME KNOWING BIRDS.—In Boston the sparrows know a thing or two. A lady writes that, being attracted by their noisy chattering, she watched their motions and saw a flock of them take turns in carrying a soda biscuit till they dropped it plump on the iron track of the street railroad. Then they all flew away and waited till a car passed over the cracker and ground it to crumbs, whereupon the whole flock swooped down and made a good breakfast.

CASHMERE SHAWLS.—Cashmere shawls are made from the wool of the Cashmere goat, which lives in the Cashmere Valley, Thibet, and Tartary. Only the summer wool is used, and this is bleached by a preparation of rice flour. For each colored thread a different needle is used. The process is so slow that when the design is elaborate, the completion of one square inch will occupy three persons for a day, and a shawl of remarkable beauty would take this number a year for its execution. Only the inner side of the shawl is exposed to the view of the workman, he being guided by the pattern placed before him, and a skilled supervisor of the work. Shawls that are worked with the needle, are, however, far inferior to those in which the pattern is woven in.

HOW CIGARETTES ARE MADE.—It is understood that at the present time quite a number of manufacturers are making cigarettes in the following manner: Cigar stumps are collected from the streets, bar-rooms, railroad stations, and other places by children and foreigners who make a good living in this way, it is said.

When the stumps are brought in to the cigarette maker, they are first dried by being placed before a fire. When dry they are rubbed between the hands until they are shredded to the size of a pin's head. The stuff is then rolled in paper and sold for cigarettes, and these are what our boys smoke!

A PRINCE'S ROCKING-HORSE.—A rude, roughly-made rocking-horse is reverently pointed out to visitors to Theobald's Museum, Chestnut, England. Its owner was a little English prince, who afterward became King Charles I. It is about four feet in height, and apparently no stirrups such as are used for your rocking-horses were ever thought of in those days, so the rocking could hardly have been very enjoyable.

A LOCOMOTIVE GAS-LIGHTER.—The covered street at Milan, now well known as the Victor Emmanuel gallery, is roofed with glass and completed by a large dome, round the interior of which runs a chain of gas lamps. The lighting of these lamps at a considerable elevation used to present some difficulties, and was always a source of risk until an arrangement was made for doing the work by electricity. A miniature railway has been constructed close to the gas burners, on which runs a little electric locomotive carrying a wick steeped in spirits of wine. When it is desired to light the burners the wick is set on fire and the locomotive started on its career. It flies round the dome, rapidly kindling the lights, and exciting much interest among the crowds that assemble nightly to witness the performance.

NATURE THE FIRST INVENTOR.—What we call invention has been long since anticipated in nature. The finest file made by man is a rough affair when compared with a Dutch rush used by cabinet-makers. The jaws of the turtle and tortoise are natural scissors. Rodents have chisel teeth, and hippopotami have adze teeth, which are constantly repaired as they are worn. The carpenter's plane is anticipated by the jaws of a bee. The woodpecker has a powerful little hammer. The burr-stones of mills are a copy of molar teeth. The hoofs of a horse are made of parallel plates like a carriage spring. The iron mast of a modern ship is strengthened by deep ribs running along its interior. A porcupine quill is strengthened by similar ribs.

OUTLINE FOR A LOWELL EXERCISE.

JAMES RUSSELL LOWELL.



McBride

Cambridge, Mass., Feb. 21, 1819.

LIFE.—1. Sketch of life read by a pupil. 2. Reading.—"An Indian Summer Reverie," stanzas 30, 31, 34, 35, 36-40.

LOVE FOR CHILDREN.—3. Recitation.—"The Changeling." 4. Reading.—"On the Death of a Friend's Child," from the words, "It is no little thing," to end. 5. Recitation.—"The First Snow Fall."

HUMOR.—Reading.—Selection from "Biglow Papers," Part I, No. I.

SELECTIONS ON FREEDOM.—Reading.—"The Present Crisis," stanzas 1-8.

FRIENDS.—Recitation.—"To H. W. L., first two stanzas. Reading.—"Emerson, the Lecturer," in "My Study Windows," Five minute selections. Recitation.—"To Mr. John Bartlett," last three stanzas. Reading.—"To Charles Eliot Norton."

LOVE FOR NATURE.—Quotations selected and read by one pupil. Reading.—"My Garden Acquaintance," in "My Study Windows," from "The return of the robin is commonly announced," to "For his cousin." Recitation.—"To a Dandelion," selections. Recitation.—"The Vision of Sir Launfal." Prelude to Part First, from "Now is the high tide of the year," to "Joy comes." Reading.—"A Good Word for Winter," in "My Study Windows," from "I think the old fellow," to "The love of Nature."

ACTED POEM.—"The Heritage." By three boys.

PLAN.—Rich man's son.—Boy of fair complexion, dressed finely. Poor man's son.—Strong, healthy looking boy, dressed for some rough work. Third boy, dressed as an old man, seated in arm-chair.

First boy recites first three stanzas, excepting last two lines of each, which third boy repeats.

Second boy recites fourth, fifth, and sixth stanzas, third boy repeating last two lines in each, as before.

Third boy repeats last three stanzas, two earnestly, the third solemnly, while raising his hands as if in blessing.

THINGS OF TO-DAY.

D. J. McCrath, the young man who robbed the Saco bank some months since, was captured at Halifax.

Earthquake shocks were felt in New Bedford and other New England towns on the morning of December 23.

Mr. Sankey has made arrangements to hold a series of meetings in England, Scotland, and Ireland in May.

Daniel Manning, ex-secretary of the Treasury, died at Albany, N. Y.

Dr. Al-nzo B. Palmer, Dean of the Faculty of the Medical Department of the University of Michigan, died December 23 at Ann Arbor, Mich., after an illness of several weeks.

The Russian official organs have a decidedly warlike tone. They say that Bulgaria must become a Russian province, and that Austria must be forced to evacuate Bosnia and Herzegovina.

The Emperor of China has issued a decree declaring Corea independent.

There is trouble again in the Hawaiian Islands, and many of the people favor annexation to the United States.

The Hospital and Clinic, given by the Vanderbilt family to the New York College of Physicians and Surgeons, was formally presented to that institution, Dec. 23.

The fund for the Grant Monument now amounts to \$120,000.

A heavy snow storm in Austria, recently blockaded all the railroads.

Authors and publishers are making efforts to have an international copyright law passed.

The steamer Newcastle City, from Liverpool, was reported lost on Nantucket shoals. She had on board a crew of thirty-three men.

A large portion of Wakefield, Mich., was burned recently. The fire was caused by an enraged monkey, in a variety theatre, throwing a lighted kerosene lamp at a man in the audience.

Complaint is made against the quarantine officers of New York. It is asserted that they are negligent.

Hundreds of Austrians have left their business and joined the army, having received orders to that effect from the government.

The Castle of Chillon will be converted by the Swiss government into a museum.

While making a speech at Dover recently, Mr. Gladstone was snowballed by the crowd.

The mails at the New York post-office during holiday week, were much heavier than former years.

FACT AND RUMOR.

The fifth annual Convention of the Modern Language Association of America, opened December 23, at the University of Pennsylvania. Papers were read by distinguished professors from various colleges.

Among those who called on W. W. Corcoran, the philanthropist of Washington, on the occasion of the recent celebration of his eighty-ninth birthday, was the historian Bancroft.

Senator Blair's book on the temperance question in this country will soon be published.

Among the recent visitors to President Cleveland were 350 New York and Brooklyn school teachers.

The University of Pennsylvania has undertaken to send an exploring expedition to Babylon. The relics recovered will be deposited in the new fire-proof building soon to be added to the institution.

Two American ladies employed as teachers at the Methodist mission in Santiago, Chili, died recently of cholera.

The law of Colorado, which provides for the study in the public schools of the State of the nature of alcoholic drinks, and narcotics and their effects on the human system has gone into effect.

The undergraduates of Princeton College have sent a missionary to India, and the students of Princeton Theological Seminary are subscribing towards the salary of a missionary for the same field.

Salt rheum often causes the hands to crack open and bleed. Hood's Sarsaparilla cures salt rheum.

EDUCATIONAL NOTES.

CONNECTICUT.

School Document No. IV, is a tract on Experimental Lessons in Science, by Prof. A. B. Morrill, of the Normal School.

The principal topic of discussion at the meeting of the state council of education, Dec. 17, was the physiology text-book prepared in accordance with the law. The Hartford Courant, of Dec. 28, published a full stenographic report of the discussion. The council elected officers for 1888 as follows:

President, John G. Lewis, of New Haven; Vice-president, W. F. Sordy, of Hartford; Secretary and Treasurer, F. A. Brackett, of Bristol.

At the annual convention of the American Society of Naturalists, which was held in New Haven Christmas week, the second day was devoted entirely to the subject of "Science Teaching in the Public Schools." The principal papers were by Prof. Alexander Winchell, of the University of Michigan, and Prof. W. N. Rice, of Wesleyan. Both warmly advocated the teaching of elementary science throughout the course of the common schools. The discussion was continued by Prof. J. D. Dana, of Yale; George Macoskie, of Princeton; Ramsey Wright, of Toronto; H. S. Williams, of Cornell, and others. Much enthusiasm was aroused.

Eaton School, New Haven, has started a cooking class, the instruction being given at the Young Women's Christian Association

rooms, by Miss Puleon, of Boston. The expense will be met by friends and patrons of the school.

Prof. R. C. Hibbard, of New Britain, will, by invitation, give an evening's reading before an audience of New Haven teachers in January.

New Haven.

A. B. FIFIELD.

The closing public exercises of the fall term of the Bridgeport High School were largely attended, and gave great satisfaction. The musical part of the program was especially attractive and creditable. A select chorus of fifty gave with good effect the very superior composition, "Morrison's Festival Hymn."

Contestants for the Barnum prizes for excellence in declamation and English composition are to select subjects from the following: Gladstone, Joan of Arc, Socrates, The Future of Democracy, The Causes of Poverty, The Scientific Progress of the past Fifty Years.

The Christmas service read on Christmas evening, at the North Church, was arranged by Principal J. D. Bartley, of the High School.

NEBRASKA.

The city of Omaha will soon offer in the market bonds, running 30 years, to the amount of \$200,000, bearing 5 per cent. interest. This amount is to be used to purchase new sites and building. As the amount this city needs for the support of its schools comes from the saloons and the state tax, it cannot but be a very safe loan.

UTAH.

One of the leading teachers of this section, and a man of wide experience, is Mr. J. B. Forbes, of American Fork. After completing a college course in England a quarter of a century ago, he traveled in nearly every quarter of the globe, and finally settled in Utah eighteen or twenty years since. From that time Mr. Forbes has devoted himself to teaching.

Spanish Fork. State Correspondent.

E. A. W.

SOUTH DAKOTA EDUCATIONAL ASSOCIATION.

The association met at Huron, Wednesday evening, Dec. 21, and was favored with an address of welcome by the mayor, and response by Hon. E. A. Dye, president of the association.

On Thursday, Supt. E. C. Patterson, of Huron, read a paper on "The Relation of High School to College Work." Supt. B. F. Hood, of Aberdeen, read one on "Literature and Reading for the Times." The evening was devoted to a social.

On Friday, a paper on "Implied Duties of Teachers and Superintendents," prepared by Supt. C. J. Collier, of McPherson Co., was read by Supt. Matheny, of Spink county; another on "Purposes and Character of Normal Schools," prepared by Supt. John Ogden, of McIntosh county, was read by Prof. G. A. McFarland. Miss Elsie Benjamin, Supt. of Clark county, presented the subject of "The Relation of Superintendent to Teacher and Pupil;" and C. J. Pickert, of Mellette, one on "Arousing Public Sentiment in Favor of Education." Prof. Chas. A. Keffer, of Brookings, dealt with the subject of teaching botany.

Supt. E. C. Patterson, of Huron, writes that this association, though small on account of storm, was the best in results ever held in Dakota, and much permanent good is likely to come from it. A movement was started whereby a uniform high school course (for the whole Territory) is to be prepared, the committee for which was appointed. Another committee was appointed to prepare a plan whereby high school graduates can be admitted to college on their final examination in high school. It was proposed that our college presidents agree on a uniform standard for admission to the various colleges, and with this standard in view, they (the presidents) prepare questions for our high schools. The committees are as follows: High School Course—E. C. Patterson, Prof. Kerr, of Agricultural College, Brookings, and Prof. S. F. Beede, of Redfield schools; College Work—Dr. Blackburn, president of Pierre University, President David Beaton, of Redfield College, Dak., and President Wm. F. Gorrie, of normal school, Madison, Dak.

The constitution of the association was amended in such a manner that it is controlled by a council of 21 teachers. This council will eventually control not only the schools, but school legislation in Dakota.

These two steps taken by the teachers will unite the varied school interests of the Territory, and be productive of much good.

The next association will meet the last week of 1888, at Redfield.

INDIANA STATE TEACHERS' ASSOCIATION.

THE COLLEGE ASSOCIATION

met on Tuesday, January 27 and considered

THE LABORATORY METHOD IN TEACHING HISTORY.

a paper by Prof. J. W. Moncrief, of Franklin College. He favored the use of text-books in the preparatory and lower grades of a collegiate course, but when the students reached the upper classes they should be assigned topics of local or national importance to work up. They should be allowed to collect data from every possible source, and to draw therefrom their own conclusions. He uses this method successfully.

DESCRIPTIVE GEOMETRY AS A DISCIPLINARY STUDY.

by Prof. C. A. Waldo of the Rose Polytechnic Institute. He said that instruction in algebra and arithmetic, the geometry of extension, was given at the expense of geometry relating to form and shape, which was finely descriptive. The latter enabled one to conceive of an object before it existed, and therefore it was valuable in cultivating the imagination.

Prof. John M. Coulter, of Wabash College, submitted his views on

COLLEGE PROFESSORS AND THEIR METHODS.

He said: "Professors love to theorize, to say that this study or method develops certain powers of the mind, that such and such are the processes by which the end is reached, but, after all, what one really wants to know is, 'what are the results?' A theoretical

ally correct way of doing anything will never find its realization in human environment, and theoretical methods are no exception. All agree that such and such are the right methods but they are never adopted. The question is not what professors in Indiana colleges can do if they have all the appliances and opportunities of certain foreign or Eastern institutions; but, how can the work be done best with the means at command?"

COLLEGE DISCIPLINE.

was the topic developed by Prof. O. J. Craig, of Purdue University. The system of discipline should be two-fold, reformatory and punitive; but the first should have the greater prominence, but at the same time, it becomes the faculty to remember that colleges are not designed as reformatory institutions. If students persist in keeping themselves out of harmony with the government of the institution they should be excluded from it.

In the afternoon, President J. J. Mills, of Earlham College, read an interesting paper on

SOCIOLOGY AS A COLLEGE STUDY.

which, he said, was greatly neglected. It had no place in collegiate courses, at least in Indiana, although it was evident that the relation of man to man was more important than the relation of man to the mollusk or ape. The evolutions of social conditions should demand more attention than the evolution of conscience. The materials were at hand in every courthouse, church, school, and family records for the proper study of sociology.

Relative to

CHURCH AND SCIENCE

Prof. O. P. Hay, of Butler University, said there was a conflict between the two and nothing could be gained by asserting there was not. So long as knowledge of science is as imperfect as it is now, and religion is covered with superstitions the conflict will continue. He cited numerous historical incidents to sustain his proposition, and maintained that the church should keep its hands off science, and that science should let the church alone. When either assailed the other it should be rebuked.

Dr. J. S. Kingsley, of the Indiana University, read a paper on

COLLEGIATE INSTRUCTION IN BIOLOGY.

in which he held that the great cause of its minor place in collegiate courses is in getting men to teach who are not competent. The error is common in securing men who lean to particular denominations, instead of men of broad and general culture. Religious opinions ought not to influence any one in this study but the instructor should be of a strong moral tone. Religion has nothing to do with biology. Scientific teaching is neither theistic nor atheistic, and biology deals with life as it is. It does not ask whence man comes, and when the soul leaves the body.

This closed the program of papers, and the association elected officers for the ensuing year, as follows:

President.—Prof. J. H. Smart, of Purdue.

Vice-president.—Prof. C. H. Kincaide, of Hartsville College.

Secretary.—Prof. C. W. Hargill, of Moore's Hill.

Treasurer.—Prof. C. A. Walsh, of the Rose Polytechnic Institute.

THE TEACHERS' BRANCH

of the association met on the afternoon of the same day, James H. Henry, superintendent of the Morgan county schools, president, and W. S. Ellis, superintendent of the Madison county schools, secretary.

Mr. E. A. P. Haynes read a paper on

A HIGH-SCHOOL COURSE OF STUDY FOR A VILLAGE OR TOWNSHIP GRADED SCHOOL.

He said: "That the majority who should attend high schools do not attend them because of the expense and inconvenience. The only way to bring an academic education within reach of the masses is to bring it to the very doors of the pupils. The village high school is destined to solve the problem. The course of study need not be radically different from the courses of study found in the high schools of the cities. It should have at least two years, and generally three, of high school work. Teachers should arrange first for strong work in the fundamental lines of study—English, mathematics, history, science, and Latin. The following is the course of study suggested: For first year's work—English grammar, algebra, general history, physical geography, and civil government. For second year's work—Rhetoric and essays, algebra finished and higher, and business arithmetic, natural philosophy and Latin grammar, and composition. For third year's work—English and American literature, geometry, botany and geology, and Caesar, with selections from other authors."

Professor Reese, of Cambridge City, read a paper on

MUSIC IN THE GRADED SCHOOLS.

The speaker favored the introduction of a regular course of music in the common schools for several reasons. It conduces to refinement in feelings and manners, and exerts over children an influence that acts as a safeguard against many species of disorder and mischievousness.

Mr. T. E. Little, of Knox county, read a paper on

GENERAL EXERCISES A MEANS OF GENERAL CULTURE.

The horizon of every-day school life ought to be broadened by glimpses into the field of general history and instructive talks upon general truths in plant and animal life.

Other papers read were:

WHAT SHALL BE DONE WITH OUR TOWNSHIP LIBRARIES?

Superintendent Fremont Goodwin, Warren county.

ELEMENTARY DRAWING IN THE COMMON SCHOOLS:

(a), Why it should be taught; (b), Should primary drawing be taught from copy or objects? Prof. L. S. Thompson, Purdue University. W. A. Bell, of the School Journal; W. S. Ellis, J. J. Henry, B. F. Wisner and others, addressed themselves to the questions presented.

A committee was appointed to consider a more detailed course of study for the common schools of the state, the same to be an expansion of the course adopted by the county superintendents in 1884. The committee, composed of Messrs. Henry, LaFollette,

T. D. Acker, and Fremont Goodwin, was instructed to report to the county superintendents in 1882, and to the next session of the section.

The following executive committee was appointed: W. D. Robinson, of Madison county; W. E. Johnson, Knox county; S. J. Huston, Dearborn county; J. H. Henry, Morgan county; W. R. Wilson, Henry county; Minor Mezun, Madison county; E. A. P. Haynes, Clinton county; Superintendent Johnson, Carroll county; E. O. Ellis, Grant county; George F. Felts, Allen county, and Grace Rowley.

The new officers are:

President—W. S. Ellis, Madison county.

Secretary—Grace A. Rowley, Elkhart.

Executive Committee—James H. Henry, Martinsville; W. R. Wilson, Henry county; J. L. Johnson, Carroll county; Mrs. G. F. Felts, Fort Wayne; Grace A. Rowley, Elkhart county.

THE HIGH SCHOOL TEACHERS.

Mr. W. W. Byers, president, listened to a paper on

THE EFFICIENCY OF THE COMMISSIONED HIGH SCHOOL.

He had addressed letters to the various collegiate institutions, inquiring whether pupils, admitted from high schools of the state into the colleges, came satisfactorily prepared. From a majority of college men a negative answer had been returned. From a series of inquiries addressed to high school teachers it was learned that the best high school pupils are not in college. A small percent. of the best graduates attend college. Many poor students from wealthy families attend college, and lower the average of scholarship. The writer makes the conclusion that in every high school the minimum courses should be equal in value. The examinations made on the basis of commissioning high schools should be made more searching, and the whole matter turned over to college authorities, and preparatory schools, as adjuncts of colleges must be abandoned, as it is an enemy to thorough work in the high schools, and to college discipline.

In the discussion which followed the reading of this paper, Superintendent Grant, of the Indianapolis high school, stated his experience in the remark that more pupils enter college from the Indianapolis high school because they fail, than because they graduate.

The next paper was by Mrs. Lois G. Hufford, of Indianapolis, on

TEACHING LITERATURE.

The speaker thought that a teacher, in order to be a true guide, must be able to sympathize with his pupils. A knowledge of English history is essential to an understanding of English literature. Biographical studies should be vivid and lasting, and in treating pretentious subjects pupils should not be permitted to use adjectives expressive of a large knowledge of subjects of which they know but little.

[TO BE CONTINUED NEXT WEEK.]

NEW YORK CITY CORRESPONDENCE.

A TEMPERANCE EDUCATOR.

There is one woman in New York City who should be known to every teacher that is trying to fulfill the law in regard to teaching temperance. This is Miss Julia Colman, superintendent of the literature department of the National W. C. T. U.

For nearly nineteen years, Miss Colman has studied the subject of alcohol in all its phases. She has taken courses of medical lectures and digested most weighty medical authorities. She has written a text-book, catechisms, and pamphlets; devised experiments, and adapted apparatus all bearing a most surprising amount of evidence against King Alcohol. From lectures, sermons, scientific works, medical authorities and many other sources, with a vigilance that nothing escapes, she has collected material for many series of leaflets—a scientific series, a teacher's series, a public service, a beer series, a wine series, and several series for young people, mostly narrative, excellent material for supplementary reading.

She has even gone to the poets, where she has found many a temperance sentiment in verse. These she has arranged on charming birthday, Christmas, New Year, and Easter cards; cards for young people, cards for school boys and school girls, all well calculated for cultivating a love of purity and beauty, which are but other terms for temperance. Miss Colman has given herself, body and soul, to this work. She receives no salary, and frequently makes up arrears out of her own personal funds, earned by her pen in early morning hours, before she comes down to her business office.

EDITORIAL NOTES.

A recent visit to Luzerne County Institute, Pa., brought us face to face with one of the largest gatherings of teachers in the Keystone state. We addressed, or tried to address, more than 600 teachers, with a "right smart" sprinkling of outsiders thrown in. These are good honest teachers in this county of coal, mountains, beautiful scenery, and hard workers. Supt. Coughlin is now serving out his third term, and it is good service too.

Luzerne county is in the Wyoming Valley—the scene of the Wyoming massacre, and the spot where the English poets Coleridge and Southey had hoped to found their pantisocratic community.

The county is largely made up of mining (anthracite) towns, and the schools mostly graded. School terms from 6 to 10 months. Over 600 teachers are in the county. James M. Coughlin, the superintendent of the Luzerne county schools, is a man of liberal culture, large experience, and marked executive ability. He is serving his tenth year in this capacity, having lately been re-elected for a fourth term of three years. He was formerly president of the state teachers' association, and is in great demand as a lecturer before teachers' institutes. Many experienced and able teachers in the county, among whom are, W. I. Hibbs, P. A. Getz, G. W. James, Miss I. J. Patton, Prof. T. J. McConnow, Miss Maria L. MacNutt, Prof. A. W. Potter, Miss Mattie Edgar, Miss Emily B. Park.

Borough and township superintendents: Harman and Monroe

of Boroughs, and Fallon and Glides of townships. These are elected and commissioned for three years, the same as county superintendents, and have exclusive jurisdiction over their own districts.

The county institute was a marked success. It was divided into three sections—department of grammar and high schools, department of ungraded schools, and department of primary schools.

Institute lecturers: Supt. R. M. McNeal, of Dauphin; Mrs. Alma Sager-Welsh, of West Chester; Miss Anna Buckbee, Dr. G. M. Phillips, and Dr. R. K. Buerhle.

A REPRESENTATIVE PENNSYLVANIA INSTITUTE.

By SUPT. WILL S. MONROE.

The twentieth annual institute of the teachers of Luzerne county, convened at Wilkes-Barre, December 19, and remained in session five days. Supt. James M. Coughlin, a man of splendid executive ability, and fine educational thought, had left nothing undone. The best of talent was secured and everything provided for the success of the gathering. The results justified the efforts for the enrollment numbered 649, only three teachers in the county being absent, and these on account of sickness.

Monday afternoon the institute was held in the Court House, where addresses were delivered by S. J. Strauss, Esq., Mrs. Alma Sager Welsh, of West Chester; Supt. R. M. McNeal, of Dauphin county, and Dr. George Morris Phillips, of West Chester. In the evening a musical entertainment was given by local talent. Tuesday forenoon the institute was divided into three sections, the primary and intermediate teachers meeting in Music Hall, the ungraded school teachers at the Court House, and the grammar and high school teachers at the Washington Grammar School building. In the primary department Miss Ella V. Flynn, of Nanticoke, gave a well conducted exercise in number after the Grube method; Robert Shiel talked about spelling, and Dr. Fred Corsa gave a thoughtful lecture on scientific temperance. School management by Supt. McNeal, Pronunciation by D. M. Hobbes, and penmanship by W. S. Chamberlin were discussed in the department of ungraded teachers. Dr. Philips talked about mensuration, and N. F. Dodson read a paper on the methods of teaching the Civil War before the grammar and high school teachers. Tuesday afternoon, T. B. Harrison, read a paper on night schools, and Dr. W. G. Weaver, one on school-room hygiene. In the evening Dr. A. A. Willits, gave his humorous lecture "Sunshine."

After a brief session in each of the three departments on Wednesday morning, the teachers met in joint session at eleven o'clock to hear Dr. Jerome Allen's splendid lecture on "The Nature of the Will and its Relation to Other Powers." In the afternoon J. W. Hayman made some sensible remarks on the economy of time. Supt. R. K. Buerhle, of Lancaster, discussed methods of securing attention, and Dr. Allen gave his second lecture, "Education of the Will through Motives and Restraints." Hon. Daniel Dougherty lectured Wednesday evening on "Orators and Oratory."

Wednesday morning Mrs. Welsh continued her talks on reading. Miss Anna Buckbee, ex-superintendent of Potter county, discussed modeling in clay, and Supt. D. A. Harman, of Hazleton, gave some helping hints on busy work before teachers of the primary department; Prof. A. W. Potter gave some suggestions on a course in language, and W. A. Moyer, of Kingston, read a paper on supplementary reading at the grammar school department, and W. J. Solly, Dr. Buerhle, and Miss Buckbee talked to the ungraded school teachers. At eleven o'clock the teachers again met in joint session, and listened with great interest to Dr. Allen's third lecture, "Diseases of the Will." In the afternoon Dr. Fred Corsa, of Kingston, one of the school directors in the county, delivered a masterly and thoughtful address on "Natural Sequence of Studies." It was rendered with great earnestness, and evinced a keen insight in progressive educational thought. This being "Director's Day," Supt. McNeal gave an address to citizens and directors, after which Dr. Allen gave his closing lecture on the Will. In the evening Dr. T. De Witt Talmage lectured on "Big Blunders," and the session of Friday forenoon was devoted to the transaction of the business of the institute. This was a remarkable gathering in that it called together a larger number actually engaged in teaching, than ever before in the history of the county. Among the distinguished guests were State Supt. Higbee, who gave three earnest addresses; Supt. Walton, of Chester county; Supt. Grimes, of Columbia county, and the principals of schools, and leading teachers in many of the surrounding counties.

LETTERS.

PERSONAL APPEARANCE.—Many of my pupils are careless about their personal appearance. How can I introduce these subjects so that they shall be real "lessons and not lectures"? TEACHER.

Introduce a series of lessons on "general topics," arranged so that each can be made to bear directly or indirectly on the points you wish impressed on your pupils. A talk on the skin, made interesting by the use of a small magnifying-glass, may be followed by one on water. The cleansing properties of water will lead back to the topic of skin, and the fact to be brought out will be doubly impressed. From the skin the transition to hair and nails is perfectly natural. Arouse your children's interest by having the human hair compared with that of a dog or horse. A lesson on touch may be made to introduce the subject of finger nails. The finger-tips are adapted to a delicate touch. The nails protect and keep shapely the finger-tips. If, then, the nails are cut closely, or worse still, bitten off, the protection of the finger is gone, the flesh must turn hard to be its own protection, and the delicacy of touch is lost. A lesson on dogs or cats may be made to serve your purpose. A sleek and well-washed animal is more liked than one that is dirty and rough looking. So, well-brushed hair and a clean face are more attractive than the reverse. Have the children examine the teeth of some animals, and compare them with their own teeth. A lesson on bread will contain, of course, a reference to crusts. Here you can dwell on the necessity of eating the hard as well as the soft parts of bread and other food, to preserve and keep firm the teeth. Teach them, above all things, that plenty of sleep, and exercise, and a happy disposition are the greatest aids toward making attractive looking people.

INTEREST IN THE OUTSIDE WORLD.—My pupils live in a secluded region, and seldom, if ever, go out of the place. As a result, they have little interest in what goes on in the outside world. How shall I interest them in it? EARNEST.

First cultivate your own powers of description, and then tell your pupils all that you have learned by observation, of cities and scenery in places of interest. Call for descriptions that have come within the range of their small experience. They will be eager to learn more, and will soon ask questions which will necessitate study either on your part or theirs. Let it be their work now to inform you. Send them to the cyclopaedia, the newspapers, books of travel, and the magazines. Give a portion of each Friday afternoon to this study, and have each one tell or read what he has found out about the subject assigned him. The results cannot fail to be satisfactory.

RECITATION PERIODS.—My recitation periods are limited, owing to the size of my school, and the number of classes. Would it be better to have classes in geography and arithmetic recite for forty minutes three days in the week, or for twenty minutes each day? N.

It is better in primary schools to have frequent recitations rather than long ones. Lessons each day keep up a more lively interest in young pupils' minds. For older pupils longer recitations are more profitable.

DICTIONARIES.—Am I not correct in saying that Worcester's dictionary is considered the best authority in pronunciation, and Webster's in spelling? J. H. S.

You are. They are thus considered by many scholars.

READING LESSONS.—I am convinced that reading lessons should not consist merely of the time-honored reading around the class, but I am not ingenious enough to devise many other plans. Can you help me? A. R.

Let some recitations be information as well as reading lessons. Select a piece which alludes to noted people or events, or describes some well-known natural wonder, or an invention. Call for all the information your pupils can gain on the subject, supplying all important points not touched upon by them. Make one lesson a study of words, another a simple study of style, if your pupils are old enough to appreciate this. Try to group together lessons in the reader which are naturally connected, as, patriotic poems, war stories, tales of great men, etc. Occasionally make a synopsis of the lesson, by questioning the class so as to bring out the main points. Place this synopsis on the board, and leave it there. It will form an outline for a good reproduction exercise some day in language recitation.

CHEWING GUM.—My pupils have a great habit of chewing gum. It is not only annoying during recess (it is strictly tabooed during school hours), but is, I know, injurious to them. How can I break up the habit? TROUBLED.

Show them, by lessons, the physiology of the habit. It is wrong because it violates the laws of health. Our bodies were given to us to keep in good condition, and the care of them should be a sacred trust. Bring out the evils resulting from gum chewing, injury to jaws from constant motion, to teeth from over-use, to digestion from waste of saliva, to conduct because the habit is unpleasant to other people.

BOOK DEPARTMENT.

NEW BOOKS.

MINGO AND OTHER SKETCHES IN BLACK AND WHITE. By Joel Chandler Harris. Boston: Ticknor & Co. 211 Tremont Street. 273 pp. 50 cents.

The skill with which Mr. Harris paints the pathetic and ludicrous in his stories is decidedly marked. His characters are as true as life, and not exaggerated in the least. The stories which compose this book are a compound of laughter and sentiment. "Mingo," the first sketch, is one in which the wealthy, the poor whites, and the Negro, are found. "Blue Dave" a somewhat similar story to Mingo, and yet entirely unlike, is made charming by its unexpectedness and surprises. "At Teague Poteet's" is much longer than either of the other sketches, and deals with the moonshiners of the Georgia mountains. Teague Poteet's daughter Sis, is really the heroine of the story, and a very striking character. The entire book is full of interest from first to last, and amply repays the reader.

WASHINGTON AND HIS COUNTRY. Being Irving's Life of Washington. Abridged for the use of schools. By John Fiske. Boston: Published by Ginn & Co. 613 pp. Cloth, \$1.00. In boards, 85 and 75 cents.

This abridgment of "Irving's Life of Washington," prepared as it has been for use in schools as a reading-book and forming one of the "Classics for Children Series" cannot but be pronounced valuable; and although it is so much abridged, it preserves the inimitable language of Irving and holds the vivid interest of the original. The book is unique in its make up, however. The "Life of Washington" is prefaced by Mr. Fiske in an Introduction of more than fifty pages, comprising the discovery and colonization of North America, in a series of seven chapters, under as many different heads. Following the "Life of Washington" is a Continuation, also by Mr. Fiske, telling how the United States became a nation, in a series of five chapters, having for subjects, The Period of Weakness, Second War with Great Britain, Rise of the Democracy, The Slave Power, and The Civil War. There are also fifteen maps, all full page; a glossary, with the pronunciation of difficult words, and a complete index. The binding of the book is uniform with all the others of the same "Series."

THE LAWYER, THE STATESMAN, AND THE SOLDIER. By George S. Boutwell. New York: D. Appleton & Co. 232 pp. \$1.25.

The preparation of these sketches is due to the circumstance that the author was fortunate enough to be personally acquainted with the persons represented in them, and the pages, consequently, show the marks of friendship, more distinctly than biographical skill. Four characters, each one standing in the foreground of our nation's history, are portrayed by Mr. Boutwell; Rufus Choate, the Lawyer; Daniel Webster, the Statesman; President Lincoln, the Statesman and Liberator; and General Grant, the Soldier and Statesman. After an acquaintance of twenty years, Mr. Boutwell has been led to decide that Rufus Choate was the ablest jury-lawyer that America has ever seen, and for all the varied exigencies of professional life, the best equipped advocate who ever stood in a judicial forum and spoke the English language. In January, 1839, Mr. Boutwell saw and heard Daniel Webster for the first time. He had then reached the summit of his fame as an orator, and the few extracts from his speeches that are given, serve as a reminder of the eloquence of the man. The sketch contains many marks of personal friendship with the author. Mr. Boutwell's estimate of President Lincoln, is seen in every line. More than sixty pages are devoted to the sketch of the noble man, and every one shines with an interest peculiar to himself. At the close of the sketch is found the Eulogy, delivered before the city government of Lowell, Mass. General Grant, as the renowned soldier and statesman, is given, by the author, the highest pinnacle of well deserved fame. Among other things he says of his Administration, "Which of all the other Administrations has done as much to diminish the public burdens, to lift up and sustain the public credit, to ameliorate the barbarism of war, or by a conspicuous example to avert war itself." The entire book is one of value and interest, embodying as it does, personal experiences of such importance. It is neatly bound in dark green, with gilt letters, and gilt top.

ELOCUTIONARY STUDIES AND NEW RECITATIONS. By Anna Randall-Diehl. New York: 48 University Place. Edgar S. Werner. 200 pp. Flexible cloth, 60 cents.

A variety of wants are met in this little volume. There are dramatic selections of the highest order for the professional and amateur reciter; besides selections for the platform, drawing-room, Sunday-school, temperance meeting, reform club, anniversary, schools, and a few for even very little children. This book is also a valuable class drill-book in elocution, and is eminently fitted for school-work.

IRISH DIALECT RECITATIONS. Edited by George M. Baker. Boston: Lee & Shepard, Publishers. New York: Charles T. Dillingham. 133 pp. Boards, 50 cents. Paper, 30 cents.

There is occasionally a call for such a book as this, and when the need arises for a special recitation in Irish dialect it is a great deal of trouble to examine hundreds of volumes in a vain search, perhaps. One book of this class will last a life-time. It consists of a series of the most popular selections in prose and verse, of which there are seventy-seven, of all grades of humor.

THE CHILDREN OF SILENCE; or, The story of the Deaf. By Joseph A. Seiss, D.D. LL.D. Philadelphia: Porter & Coates. 208 pp. \$1.00.

This volume is altogether unique in its character and contents, and will interest every class of readers. It is devoted to a popular account of the deaf mutes, and coming from the pen of an able writer, and one of experience among this class of persons, it will be welcomed. Dr. Seiss has considered the numbers of deaf-mutes, the causes most prolific in their production, the nature and effects of their peculiar disability, how they were regarded in former ages, what can be done for them, together with sketches of the efforts in various periods and nations to instruct and educate them, the methods employed to teach them, and what the present century has developed for their relief. It will be seen that this book covers a great deal of ground, and it has been prepared by Dr. Seiss only after much reading, research and examination. It is sur-

prising to notice the amount of statistics gathered together and what a clearness they give to the subject. There is also much in the volume which tends to show the mischief resulting from the inter-marriage of blood relatives the inter-marriage of deaf-mutes, and other similar questions of vital importance. The idea has not been to prepare a scientific treatise, but to simply state vital facts, with comments upon them.

PRE-GLACIAL MAN AND THE ARYAN RACE. By Lorenzo Burge. Boston: Lee & Shepard. 10 Milk Street. 273 pp.

In this book is found a history of creation, and of the birthplace and wanderings of man in Central Asia, from B. C. 32,500 to B. C. 8,000, with a history of the Aryan Race, commencing B. C. 15,000, their rise and progress, and the promulgation of the first revelation; their spiritual decline, and the destruction of the nation, B. C. 4,705; the inroad of the Turanians, and the scattering of the remnant of the race, B. C. 4,304, as deciphered from a very ancient document. Also, an exposition of the law governing the formation and duration of the Glacial Period, and a record of its effects on man, and on the configuration of the globe. There is also a chapter on the Deluge; its cause, locality, and extent, with an account of the "Oannes Myth." The author of this book, has endeavored to show that the plans of the Deity, for the spiritual instruction of the human race, have been apparently frustrated through the disobedience of the Aryas, and the seventeen chapters which compose the book will be found full of original ideas, which are, many of them, curious and entertaining. All readers may not agree with the author, but the subject of the book is worth an investigation.

THE DIVINE MAN. From the Nativity to the Temptation. By Rev. George Dana Boardman, D. D. New York: D. Appleton & Company. 306 pp. \$1.50.

In a series of twenty-one chapters, with marginal notes, Dr. Boardman, has portrayed the "Divine Man," in a manner calculated by its originality of form, and treatment to rouse the truest sympathies, and wake up the imagination. The first chapter is devoted to the prologue of the Gospel, the second to the preface of the Gospel, and these are followed by the Annunciation to Zacharias, The Annunciation to Mary, The Visit of Mary to Elizabeth, The Birth and training of John the Baptist, The Annunciation to Joseph, The Birth of Jesus Christ, The two Genealogies, as found in Matthew and Luke, The Annunciation to the Shepherds, The Circumcision and Presentation of Christ, The Homage of Simeon, Anna and the Wise Men, The Flight into Egypt, the Massacre of the Innocents, the Settlement at Nazareth, the Training of Christ, the Baptist's Heraldry, followed by the Baptism and Temptation of Christ. All of these subjects, enlarged upon, and presented by a writer so thoroughly able to deal with them, have a tendency to draw out the heart's best and purest thoughts, and quicken the imagination in regard to the history of the every-day life of Christ. The book is written in an easy, conversational manner, at once charming and attractive.

HARK! THE HERALD ANGELS SING. By Charles Wesley. Illustrated by Photo-gravures after original designs by Frederick W. Freer. New York: Frederick A. Stokes, Successor to White, Stokes & Allen. 16 pp. 75 cents.

The world will never get tired of this most celebrated Christmas carol, and the name of Charles Wesley would be immortal, if he had never written anything else. It appears in this pretty little white covered volume as a Christmas book, and is illustrated by original designs, in tints. At the close of the book is a very short biography of Mr. Wesley. The cover is white, paper-covered, embellished with angels in gilt, and the whole is neatly tied with white ribbon.

REPORTS.

SCHOOL COMMISSIONER'S ANNUAL REPORT, FIRST DISTRICT OF KENNESAW CO., N. Y. J. Russell Parsons, Jr., Commissioner.

The commissioner believes that, so far as possible a course of study should be pursued in country schools in order that as little as need be of the short time that most pupils have in schools shall be wasted. Such a course was adopted for the ungraded schools of the county in 1886 and many schools have been benefited by introducing it. His report treats of many things of local interest.

COURSE OF STUDY FOR THE PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA. Adopted Oct. 21, 1887. W. B. Powell, Superintendent.

The work of preparing a course of study for the schools of the District of Columbia has been done in a thorough and practical manner. The subjects treated are language, number, geography, U. S. history, music, manual training and drawing, penmanship, physiology, physics, and ending with the course laid down for the high school. The course in each subject covers several years. The teacher is advised to know the condition of the school-room respecting warmth and purity of air, as this is as important as conducting recitations. Free gymnastics are recommended at half hour intervals, at which time the air of the room can be changed by opening doors and windows.

ANNUAL REPORT OF THE BOARD OF EDUCATION OF COLUMBUS, OHIO, 1887. R. W. Stevenson, superintendent.

The same complaint comes from Columbus that is heard from many other populous and growing cities—the schools are overcrowded. The board is, however, doing its best to remedy the matter. The president of the board takes his stand squarely against the introduction of manual training in the schools on the ground that the teaching of trades would be diverting them from their real object, and would make the course of instruction too cumbersome and expensive, forgetting that the friends of manual training do not advocate the teaching of trades, but the training of the mind through the hand. The president, however, thinks that manual training might profitably be introduced into the high school, but not as a compulsory study. The medical examiner presents some interesting facts, especially in regard to the eye-sight of the pupils, and claims that the eyes of the children are over-strained by too much study. His report is followed by comments in which issue is taken with him on this point, it being held that deducting the time spent in listening to explanations by the teachers, in oral recitations, in calisthenics, and in other ways, the actual time spent each day in study is only two hours and these two hours are broken up into fragments, rendering the conclusion, that harm to the eyes arises from this cause, ridiculous. It is asserted that the cause of defective eye-sight must be looked for outside the school-room.

THE DISEASES OF PERSONALITY. By Th. Ribot. Translated from the French by J. Fitzgerald, M. A. Humboldt Library, No. 35, J. Fitzgerald, Publisher. 15 cents.

In the opening chapter the author treats of individuality, defines personality, and gives the views held by himself and others of consciousness. Further on he shows the deviations from the normal type occasioned by organic, effective, and intellectual disturbances, and then considers the phenomena that are observed when personality is dissolved. Many interesting cases are cited to illustrate the points, notably those in regard to monstrosities, hallucinations, double personality, new personality, and others of a similar character. The pamphlet is well worth the perusal of those engaged in the study of psychology.

ANNUAL REPORT OF THE SUPERINTENDENT OF THE CITY SCHOOLS, OKLAHOMA, IA. Orion C. Scott, Superintendent.

The school work in this progressive little city is of an excellent character. During the year a very successful exhibit was made of articles manufactured by the pupils, which showed great skill and ingenuity; many additions have been made to the high school museum, and much interest is felt in it. The total enrollment was 1,559, and the average attendance was 1,018.

SIXTEENTH ANNUAL REPORT OF THE PUBLIC SCHOOLS OF KANSAS CITY, MO., 1886-7. J. M. Greenwood, Superintendent.

At each recurring year the school board of this wonderfully prosperous Western city has to face the problem, "How shall we accommodate the children?" Fifty new teachers were added last fall, and the number is increased from time to time, as the needs of the schools require. The people in this part of the West are not wanting in patriotism, if one can judge from the names of three of their new school buildings, which are called respectively the Garfield, William Cullen Bryant, and Adams buildings. The school library has not been neglected, for there are about sixteen thousand well-selected volumes in it, and it is growing year by year. In the report is contained much valuable matter in addition to the ordinary statistics and statements of facts, including a consideration of "The Relation between the High School and Ward Schools," "The Ideal Teacher," "Ametropia," etc.

The difficulty of adequately meeting the wants of the school population will be seen by a glance at the statistics: Number of persons between the ages of six and twenty years of age, 35,871; total enrollment in the public schools, 14,906; increase over previous year, 2,923; average attendance each day, 8,458; average salary for male teachers, \$135.02; average salary for female teachers, \$64.20; whole number of teachers, 212. There are twenty-five school houses in the district, and thirty-six new rooms were added during the year.

LITERARY NOTES.

Crowell & Co. have two more of Tolstol's works in press, one composed wholly of stories for children, the other treating of "Napoleon and the Russian Campaign."

Harper & Brothers have published Samuel Smiles' "Character" in their Franklin Square Library.

Teachers of art in all its branches will be interested in the new "Short History of Architecture," by A. L. Tuckerman, just published by Charles Scribner's Sons. The work is intended to fill the want of a concise and yet comprehensive view of the subject, adapted to the needs of beginners and yet containing all that is most important for advanced students to know.

Among the original copyright novels in Ticknor's Paper Series is a "A Tallahassee Girl," by Maurice Thompson. Some of the other books on their list are, "The New Astronomy," by S. P. Langley; "New Waggings of Old Tales;" "The White Sail," and other poems, by Louise Imogen Guiney; "Women and Work," by Emily Pfeiffer; "Olden-Time Music," collected and edited by Henry M. Brooks.

The January number of *Woman* presents an attractive list of articles by the best writers. Among its illustrated articles is one on the "Great Books of the Astor Library," by the librarian of that institution, Frederick Saunders; a timely tribute to the late Mrs. Dinah Muloch Craik is contributed by Mrs. Katherine Paynter; "The Doctor's Eldest Daughter," is an illustrated story by Margaret Sidney; local recollections of Jenny Lind are revived in S. Fredericks' paper on "The Swedish Nightingale."

Outing for January contains an interesting paper by the late General Marcy, on the different varieties of wolves met with on the American continent, together with some thrilling incidents relative to their chase and capture. The illustrations are by J. Carter Beard.

The John Church Co. of Cincinnati, O., have just issued a Musical Calendar, giving interesting Chronological facts relating to music and musicians. It sells for 15 cents. It is unique and very artistic, and will be appreciated by all music-loving people, and every one who admires a neat and tasteful calendar.

The Baker & Taylor Co., New York, announce the speedy publication of "National Perils and Opportunities," the discussions of the General Christian Conference, held at Washington, D. C., Dec. 7-9, 1887.

Prof. John Stuart Blackie, Hon. Andrew D. White, Canon Wilberforce, Justice S. F. Miller, Prof. Freeman, and Wilkie Collins are among those who will write for the Forum during the year 1888.

BOOKS RECEIVED.

The New Astronomy. By Samuel Pierpont Langley, Ph. D., LL. D. Illustrated. Boston: Ticknor & Co. \$5.00.

Introductory Steps in Science. For the use of Schools. By Paul Bert. Translated by Marc F. Vallette, LL. D. New York: D. Appleton & Co. Parts I, II, III. One vol. 48 cents. Introductory Price. Parts IV, V, VI, VII. One vol. 48 cents. Introductory Price. Seven Parts Complete in one Vol. 90 cents, Introductory Price.

A History of Elizabethan Literature. By George Saintsbury. London: Macmillan & Co. \$1.75.

Pre-Glacial Man and The Aryan Race. By Lorenzo Burge. Boston: Lee & Shepard. \$1.50.

Washington and His Country. Being Irving's Life of Washington. Abridged for the use of Schools. By John Fiske. Boston: Ginn & Co. Mailing Price, \$1.00. Boards, 85 and 75 cents.

Weather. A popular exposition of the nature of weather changes from day to day. By H. C. Ralph Abercromby. New York: D. Appleton & Co. \$1.75.

The Divine Man. From the Nativity to the Temptation. By George Dana Boardman. New York: D. Appleton & Co.

The Lawyer, The Statesman, and The Soldier. By George S. Boutwell. New York: D. Appleton & Co. \$1.25.

Little Peter. A Christmas Morality for Children of any Age. By Lucas Malet. Illustrated by Paul Hardy. New York: D. Appleton & Co. \$1.25.

Outlines of Natural Philosophy for Schools and General Readers. By J. D. Everett, D. C. L. New York: D. Appleton & Co.

Cesar's Holy-tan War. Adapted for the use of beginners. By W. Welch, M.A., and C. G. Duffield, M.A. London: Macmillan & Co. 40 cents.

The History of Caliph Vethek. By William Beckford. New York: Cassell & Co. 10 cents.

A Practical Course in Qualitative Analysis, for use in High Schools and Colleges. By James W. Simmons, with additions for student's work. By La Roy F. Griffin. Chicago: Jno. C. Buckbee & Co. 50 cents.

CATALOGUES AND PAMPHLETS RECEIVED. Forty-ninth Annual Report of the Board of Publication of the Presbyterian Church of the United States of America, 1887.

Tillinghast's Plant Manual; or, How to Grow Cabbage and Celery. Isaac F. Tillinghast, La Plume, Tichwaqua county, Ia.

QUESTIONS AND ANSWERS

Thousand and One Questions and Answers.

These Question Books are absolutely without a rival in preparing for Examinations, for reviewing Pupils in School, or for use as Reference Books. They can be sold in every family that has children to educate. The author of these books is an experienced teacher.

On U. S. History.....Hathaway 50c. On English Grammar.....Hathaway 50c
 " Geography.....50c. " Physiology and Hygiene.....50c
 " Arithmetic.....50c. " Theory and Practice of Teaching.....50c

Descriptive Circulars mailed free on application.

Campbell's Economic School Register.

COPYRIGHTED.

In very attractive Board Covers, removable insides.....75c.
 Fillers, Manila Covers.....35c.

Descriptive Circulars mailed free on application.

This is the neatest and most excellently manufactured Register in the country. Its utility is not less apparent than its artistic merit. The Block System, originated and copyrighted by Prof. Campbell, is most economical of time in keeping the record, and by the really wonderful condensation which it permits, is just as economical of money. One Register, which will last an ordinary School two years, costs but 75 cents by mail, post-paid, and a renewing Filler, lasting as much longer, costs less than half as much.

Campbell's Economic Examination Record.

Board Covers, by mail, post-paid, 25 cents.

This has all the merits of durability, neatness, and economy of time and price, possessed by the preceding.

Words Correctly Spoken.

By ELROY M. AVERY, Ph.D. Retail Price, 15 cents.

Bound in extra cloth, stamped in black and gold, printed with red line borders, wittily written, valuable to all who would speak their mother tongue with accuracy.

Popular Synonyms.

Cloth 32mo. Price, 10 cents. By mail, 12 cents.

Twenty-five thousand words in ordinary use. Accurate, cheap, elegant. Elegantly stamped in Ink and Gold.

Rusk's Model Selections.

Nos. I, II, III, and IV. Paper, 25 cts.; Boards, 40 cts.

No. I. contains a chapter on the Principles of Elocution, embracing the subject of Elementary Sounds, Pitch, Volume, Quality, Movement, Accent, Emphasis, Articulation, Gesture, etc. No. IV. is devoted to selections for the Young.

Lithographed Covers, about 150 pages, 12mo. In each number.

The Perfect Progressive Euchre Score-Marker.

COPYRIGHTED.

No sticky wafers. No mistakes. Absolutely infallible.

PRICES: For 3, 4 or 5 Tables.....\$0.50 per set, post-paid.
 For 6, 7 or 8 "......75 " "
 For 9 or 10 "......90 " "
 For 12 ".....1.00 " "
 For 15 ".....1.25 " "

SPECIAL NOTICE.—Sets can be used only for designated number of tables.

THE BURROWS BROTHERS COMPANY,

23, 25, 27 EUCLID AVE., CLEVELAND, O.

Publishers' Agents for above:

Messrs. E. L. KELLOGG & CO., 25 Clinton Place, N. Y.

THE SCHOOL SUPPLY PUBLISHING CO., 36 Bond Street, New York.

TEACHERS' AGENCIES.

WOMAN'S EXCHANGE

Teachers' Bureau.

(FOR BOTH SEXES.)

Supplies Professors, Teachers, Governesses, Musicians, etc., to Colleges, Schools, Families and Churches. Also Bookkeepers, Stenographers, Copyists and Cashiers to Business Firms.

Address (Mrs.) A. D. CULVER,
 329 Fifth Ave., N. Y.

TAKE NOTICE. We want a few teachers of pronounced ability for actual vacancies in Primary, Intermediate, and Grammar Grades in Public Schools near the city at good salaries. We desire to correspond with those teachers only who will either call at our office or send us copies of testimonials and photograph.

W. D. KERR, Sec. Union Teachers' Agency,
 16 ASTOR PLACE, NEW YORK.

SCHERMERHORN'S TEACHERS' AGENCY.
 Oldest and best known in U. S.
 Established, 1855.
 7 EAST 14TH STREET, N. Y.

No Fee for Registration. Advantages superior in every respect. Good Teachers—no others always wanted. Form for stamp. R. E. AVERY, American School Bureau, 2 West 14th St., NEW YORK.

BRIDGE TEACHERS' AGENCY
 110 Tremont St. 125 Nicollet Ave.
 Studio Building, BOSTON. MINNEAPOLIS, MINN.
 Good teachers recommended to school officers. Good places for successful teachers. Circulars on application.

KINDERGARTEN

NATHANIEL JOHNSON,
 Manufacturer of
CHURCH AND SCHOOL FURNITURE,
 Reversible Settees for Sunday-Schools,
 Pews for Churches, Pulpits, etc.,
 Has removed from 490 Hudson Street, to
 106 and 108 Seventh Avenue.

READERS will confer a favor by mentioning the SCHOOL JOURNAL when communicating with advertisers.

TEACHERS' AGENCY

OF RELIABLE

American and Foreign Teachers, Professors, and Musicians, of both sexes, for Universities, Colleges, Schools, Families, and Churches. Circulars of choice schools carefully recommended to parents. Selling and renting of school property. SCHOOL FURNITURE and school supplies. Best references furnished.

Mrs. MIRIAM COYRIERE,
 31 E. 17th Street, between Broadway and Fourth Avenue, New York City.

AMERICAN AND FOREIGN Teachers' Agency.

Introduces to colleges, schools, and families, superior Professors, Principals, Assistants, Tutors, and Governesses for every department of instruction; recommends good schools to parents. Call on or address:

Mrs. M. J. YOUNG-FULTON,
 American and Foreign Teachers' Agency,
 23 Union Square, New York.

Pennsylvania Educational Bureau.

Business Transacted in Every State and Territory. THE manager is Superintendent of Public Schools and has spent over twenty-five years in school-work. PROF. GEO. W. TWITMYER, Prin. Public Schools, Homestead, Pa.: "From personal knowledge I can most heartily recommend the Pa. Ed. Bureau to worthy teachers seeking preferment or new positions."

L. B. LANDIS, Manager,
 205 N. 7th Street, Allentown, Pa.
 For larger salaries, or change of location, address Teachers' Co-operative Association, 170 State Street, Chicago, Ill., Orville Brewer, Manager.

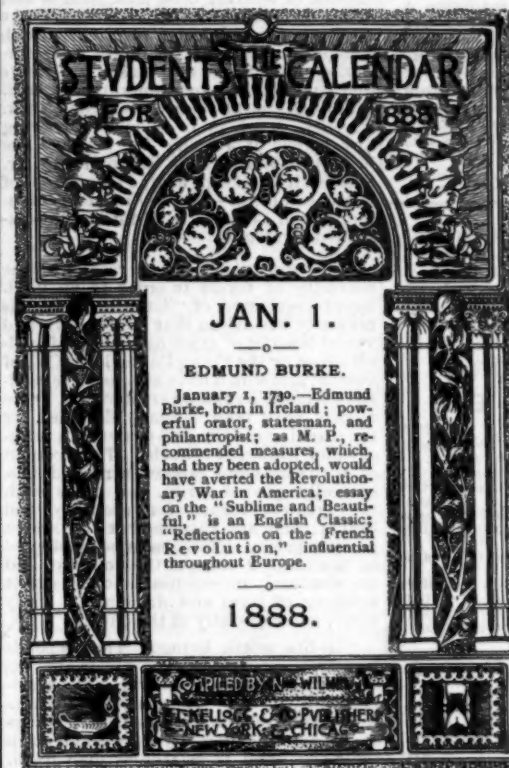
AND SCHOOL SUPPLIES

CALL AT THE
DENTAL ROOMS
 OF
DR. W. J. STEWART.
 32 WEST 23rd STREET.

If your teeth are needing attention. Reliable Work Moderate Charges. Plastic filling for broken down and sensitive teeth, a specialty.
 Refers to A. M. Kellogg, Editor SCHOOL JOURNAL.

A SUPERB CHRISTMAS PRESENT.

THE STUDENTS' CALENDAR



A unique and useful calendar designed especially for Teachers and Students.

SUGGESTIVE, HELPFUL, ORNAMENTAL

The birthdays of celebrated men arranged in order, one for each day of the year.

In calendar form, price, 60 cts.; to teachers, 48 cts.; by mail, 8 cts. extra. In book form, 30 cts.; to teachers, 24 cts.; by mail 3 cts. extra.

E. L. KELLOGG & CO., Educational Publishers, { 25 Clinton Place, New York.
 151 Wabash Avenue, Chicago

We were unable for several reasons to issue this beautiful calendar as early in the season as we expected. Most of the edition is already sold, and we therefore offer the remainder at this nominal price:

30c. each, by mail, post-paid.

25c. each, in our office, or by express.

Orders should be sent in at once. Nearly every one who has called at our office for the past few days has purchased a copy, because it was so pretty and so useful.

FIFTH EDITION.

IMPROVED GEOGRAPHICAL AND HISTORICAL CARDS

200 Cards and 1,000 Important Points in each set. Cover the whole field of Geography and U. S. History. Unequaled in preparing Teachers and Advanced Scholars quickly for examination in above branches. Remit \$1.00 for sample set of either kind, with our liberal terms to agents. FREEMAN & RIDDLE, Fountain Park, O.

THE MUSICAL 1888.

As the musical New Year heaves in sight, we greet it with the "Sound of Hornet," (or any other musical instrument, for all of which Oliver Ditson & Co. provide the very best instruction Books.) With the New Year, many new pupils will commence to learn the Piano; to them and their teachers we commend.

RICHARDSON'S NEW METHOD FOR THE PIANOFORTE.

A peerless book, which has held the lead for many years, and, unaffected by the appearance of other undoubtedly excellent instructors, still sells like a new book. Price \$3.

CHILDREN'S DIADAM [30 cts., \$3 per doz.] is filled with happy and beautiful SUNDAY SCHOOL SONGS, and is one of the best of its class. The newest book.

UNITED VOICES [50 cts., \$4.80 per doz.] furnishes abundance of the best SCHOOL SONGS for a whole year. The newest book.

Books that sell everywhere and all the time. College Songs 50 cts., War Songs 50 cts., Jubilee and Plantation Songs 30 cts., Minstrel Songs, new and old \$2. Good old Songs we used to sing, \$1.

KINKEL'S COPY BOOK [75 cts.] with the Elements and Exercises to be written, is a useful book for teachers and scholars.

Any Book Mailed for the Retail Price.
OLIVER DITSON & CO., BOSTON,
 C. H. DITSON & CO., 887 Broadway, New York.

TEACHERS! Our New School Aids will assist in conducting your schools in good quiet order. Each set contains 216 large beautiful chromo excelsior, insert and credit cards, elegantly lithographed in sixty different designs, colors and motions; per set \$1; half set 100 cards 50c. Large set includes pretty chromo school reward cards. Price list and few samples free! all postpaid by mail. A. J. FOUCH & CO., WARREN, PA.

SCHOOL AIDS

PHYSICAL TRAINING.

NEW LINE OF APPARATUS FOR SCHOOL USE.

WOODEN DUMB-BELLS.

Ten numbers, from one and three-fourth inch balls to four inch. A good, neat, durable line of goods at moderate prices.

WANDS.

A new line of Wands from 36 inches to 60 inches, with balls on ends or plain.

WOODEN RINGS.

Good, strong, hard-wood rings. Durable and neat.

Send for full catalogue to

MILTON BRADLEY CO.
 SPRINGFIELD MASSACHUSETTS

Hood's Sarsaparilla

This successful medicine is a carefully-prepared extract of the best remedies of the vegetable kingdom known to medical science as Alteratives, Blood Purifiers, Diuretics, and Tonics, such as Sarsaparilla, Yellow Dock, Stillingia, Dandelion, Juniper Berries, Mandrake, Wild Cherry Bark and other selected root, barks and herbs. A medicine, like anything else, can be fairly judged only by its results. We point with satisfaction to the glorious record Hood's Sarsaparilla has entered for itself upon the hearts of thousands of people who have personally or indirectly been relieved of terrible suffering which all other remedies failed to reach. Sold by all druggists. \$1; six for \$5. Made only by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

100 Doses One Dollar.



How to Cure Skin & Scalp Diseases with the CUTICURA REMEDIES.

TORTURING, DISFIGURING, ITCHING, scaly and pimply diseases of the skin, scalp and blood with loss of hair, from infancy to old age, are cured by the CUTICURA REMEDIES.

CUTICURA RESOLVENT, the New Blood Purifier, cleanses the blood and perspiration of disease-causing elements, and thus removes the cause. CUTICURA, the great Skin Cure, instantly allays itching and inflammation, clears the skin and scalp of crusts, scales and sores, and restores the hair.

CUTICURA SOAP, an exquisite Skin Beautifier, is indispensable in treating skin diseases, baby humors, skin blemishes, chapped and oily skin. CUTICURA REMEDIES are the great skin beautifiers.

Sold everywhere. Price, CUTICURA, 50c.; SOAP, 25c.; RESOLVENT, \$1. Prepared by the POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.

Send for "How to Cure Skin Diseases."

TINTED with the loveliest delicacy is the skin bathed with CUTICURA MEDICATED SOAP.

THE Toy the child likes best!

This is the title of a descriptive Price-list, richly illustrated in color-print, of the ANCHOR STONE BUILDING BOX, which should be found in every family and may be obtained from all Toy dealers, Stationers and Educational Depots. The Price-list will be forwarded gratis on application to

F. AD. RICHTER & Co.
NEW YORK, 310, BROADWAY or LONDON E.C., 1, RAILWAY PLACE, FENCHURCH STREET.

Does 'cycling aid to vigorous appetite, good digestion, exhilarated spirits, innocent pleasure and health for all?

YES!

Would the majority of American riders of first-class machines have ridden for 10 years, and continue to ride Columbia Bicycles and Tricycles if they were not the best?

NO!

The most comprehensive 'cycling catalogue published, free on application.

POPE MFG. CO.,
79 Franklin St., Boston.
12 Warren St., N. Y.
291 Wabash Avenue, Chicago.

SOWER POTTS & CO., PHILADELPHIA.

THE NORMAL EDUCATIONAL SERIES.
Dr. Brooks's Normal Mathematical Course
1. Standard Arith. Course, in Four Books.
2. Union Arith. Course, in Two Books, combining Mental and Written.
Brooks's Higher Arithmetic.
Brooks's Normal Algebra.
Brooks's Geometry and Trigonometry.
Brooks's Philosophy of Arithmetic.
Manuals of Methods and Keys to the Above.
Montgomery's New Union System of Indust. Drawing.
Lyte's Book-keeping and Blanks.

OPIUM AND MORPHINE HABIT CURED
in 10 to 20 days. No pay until cured. Address
DR. JAS. J. HOLDEN, WILLIAMSBURG, N.

READERS will confer a favor by mentioning SCHOOL JOURNAL when communicating with advertisers.

THE PUBLISHERS' DESK.

"'Tis sad to part when friends are dear." But the sadness of parting is somewhat ameliorated by the possession of some slight token of friendship and remembrance. In schools and colleges, the fashion of wearing class pins, badges and rings has done much to mitigate the sorrow of graduating farewells. Such Badges and Medals for Pupils of Seminaries and Schools, also Class Pins, Rings and Bracelets, are manufactured by E. R. Stockwell, at 10 John Street, New York. Parents, teachers or scholars desiring any article of Jewelry for personal use or for presentations can be supplied by Mr. Stockwell who keeps a large assortment of Watches—Rings—Pins—Bracelets—Diamonds and Chains. Send for his illustrated catalogue.

Every student of drawing recognizes the necessity of forms in order to an intelligent perception of "form." From this necessity has arisen that well-known and valuable series of drawing books and models issued by the Prang Educational Co., of Boston, and which have attained so excellent a reputation among art students. These models have been specially designed for the teaching of form and drawing in primary and grammar schools. They consist of both solids and tablets, arranged in a carefully graded series, are made with the greatest regard for accuracy and beauty, and are furnished at the lowest possible prices. They have been adopted by the leading cities of the country, and are absolutely indispensable to the correct teaching of form and drawing in every stage, and especially at the outset.

"Is life worth living?" That depends largely upon circumstances. If one has an aching tooth the answer will be emphatically, "No." There are few matters that are reckoned among the trifling things of life which can really have so great an influence upon it as troublesome teeth. The only remedy for this ill which all flesh seems heir to is a visit to a competent dentist. Not one "falsely so-called," who might better be denominated a "butcher or a blacksmith," but a thorough professional dentist such as Dr. W. J. Stewart, of 32 W. 23d Street. At Dr. Stewart's dental rooms, dentistry is robbed of its old-time horrors. If your teeth are needing attention, reliable work may be obtained at moderate charges. Plastic filling for broken down and sensitive teeth is a specialty which has added greatly to the Doctor's reputation. Refer to A. M. Kellogg, Editor of the SCHOOL JOURNAL.

Some four of our most erudite and penetrating scholars have been accustomed to read the dictionaries as a steady diet, and those who know declare that this is the source of their wonderful command of English. Unquestionably the dictionary is a great book, particularly if it Webster's Unabridged. Alas! it is also a large book. It is not always convenient to hoist it up with a derrick and hold it up suspended while one is inquiring the true inwardness of some jaw-breaking phrase. No need of this, however, since that perfect dictionary holder was invented by Mr. R. M. Lambie of 39 East 19th Street, to hold all kinds of books great and small.

"Thou hast been weighed in the balance and found wanting." This was the dread verdict on the Babylonian King. These words suggest the earthly balance used by chemists in their experiments. A view of this apparatus may be obtained by consulting another column of the JOURNAL. Various other appurtenances will be noticed in the same picture which is intended to convey a graphic though limited idea of that large stock, manufactured and imported by Messrs. Bullock & Crenshaw, of 528 Arch street, Philadelphia, who make a specialty of Chemical Apparatus and Pure Chemicals, for colleges and schools. Their illustrated priced catalogues are furnished on application.

There is a certain "horror of great darkness" familiar in classical literature, which is yet quite unknown to the modern dilettant. He is better acquainted with that black and lustrous polish, whose world-wide fame has taught the hills to cry aloud and the firmament itself to echo back the name of Button & Ottley's Raven Gloss Shoe Dressing, whose pre-eminent virtues are recognized by all wearers of shoes. This dressing has the quality of making ladies' shoes look new, not varnished. It is economical. Any reliable dealer keeps it.

\$5,000 Salary

we cannot afford to pay you, but we can put you in the way of earning a good salary.

All persons who have taken orders for educational papers, books, etc., and all other persons who have the ability to solicit among teachers, are cordially invited to address us for particulars.

TEACHERS' PUBLISHING COMPANY,

18 ASTOR PLACE, NEW YORK.

JUST PUBLISHED.

EDUCATIONAL GEMS.

TEACHERS' MANUALS SERIES.

This is a new series of short essays on educational subjects, by the best writers, at a nominal price.

NOW READY.

- No. 1. J. G. Fitch's "Art of Questioning."
- No. 2. J. G. Fitch's "Art of Securing Attention."
- No. 3. Arthur Sidgwick's "On Stimulus in School."
- No. 4. Charlotte M. Yonge's "Practical Work in School."
- No. 5. J. G. Fitch's "Improvement in the Art of Teaching."
- No. 6. J. H. Gladstone's "Object Teaching."

Each is printed in large, clear type, on good paper, with sideheads, topics, and analyses. From 32 to 64 pp. each, with paper cover. Price, 15 cents; to teachers, 12 cents; by mail, 1 cent. extra. Remit in stamps. Liberal discount in quantities.

E. L. KELLOGG & CO., Educational Publishers, { 25 Clinton Place, New York. }
151 Wabash Avenue, Chicago. }

A NEW EDITION FROM NEW PLATES.

PAYNE'S LECTURES ON EDUCATION.

Lectures on the Science and Art of Education, by JOSEPH PAYNE, the first Professor of the Science and Art of Education in the College of Preceptors of London, England. With portrait and index. 16mo, cloth, 350 pp. Price, \$1.00; to teachers, 80 cts.; by mail, 10 extra.

An elegant new edition of this valuable book, from new plates, is now ready. Large, clear type is used, and topic headings are freely inserted in the margin. An analysis is given at end of each chapter, and a full reliable index at end of book. Mr. Payne's paragraphs are long and the book absolutely needs such aids to study. A portrait of Mr. Payne is included. The paper, printing, and binding make this by far the most elegant, at it is one of the most valuable, teachers' books published.

E. L. KELLOGG & CO., Educational Publishers, { 25 Clinton Place, New York. }
151 Wabash Avenue, Chicago. }

A PRACTICAL BOOK.

INDUSTRIAL EDUCATION.

By SAMUEL G. LOVE, Superintendent of Schools at Jamestown, N. Y.

CONTENTS. Preface; Suggestions to Teachers. Part I. The Claims of Manual Training. Part II. Introduction of Manual Training in the Jamestown, N. Y., schools, and Course of Study, from the lowest primary to high school. Part III. Suggestions, Lessons, and Methods of Instruction in Manual Training in Primary School. Part IV. Manual Work for Boys and Girls in the Grammar School. Part V. Manual Training in the High School.

Manual Training is coming into a very prominent position, and the book just published by us, will be welcomed by teachers everywhere. Supt. S. G. Love, of Jamestown, N. Y., began introducing Manual Training fourteen years ago, and this book describes his plan. He now has 2200 children in the schools, all graded, and nearly all receiving instruction in Manual Work. The book is specially valuable because it points out the proper work for each grade; he gives the results of his experiments. The price is \$1.75; to teachers, \$1.40; by mail, 12 cts., extra.

E. L. KELLOGG & CO., Educational Publishers, { 25 Clinton Place, New York. }
151 Wabash Avenue, Chicago. }

Teachers' BOOKS AT TEACHERS' Prices

Elegant 84 Page descriptive Catalogue FREE if you mention this paper. Orders filled promptly, large stock on hand. Many Normal Schools, Institutes and thousands of teachers were supplied by us the last year. You can get all such books promptly of us at a good discount. Also large stock of books for School Libraries on hand, catalogue of the best 1,000 ready in September.

E. L. KELLOGG & CO., Educational Pubs., { 25 Clinton Place, New York. }
151 Wabash Avenue, Chicago. }

READERS will confer a favor by mentioning SCHOOL JOURNAL when corresponding with advertisers.

R. H. MACY & CO.14th St., Sixth Ave., and 13th St.,
NEW YORK.GRAND CENTRAL FANCY AND DRY
GOODS ESTABLISHMENT.AN IMMENSE STOCK OF LADIES' AND
CHILDREN'S**MUSLIN UNDERWEAR,**ALL OUR OWN MANUFACTURE, AT THE
LOWEST PRICES IN THE COUNTRY.

OUR GENTLEMEN'S

UNLAUNDRIED SHIRT,
at 74c.,HAS NO EQUAL MADE IN OUR OWN
WORKROOMS, BOSOMS OF CAREFULLY
SELECTED LINEN, AND BUTTONHOLES
HANDMADE.**LAUNDRIED, 86c.****LINEN GOODS**

OF ALL KINDS.

**BLANKETS, FLANNELS
LACE CURTAINS, ETC.**

BLACK AND COLORED

Silks, Satins, Plushes,
AND**Dress Goods,**

AT PRICES BELOW ALL COMPETITION.

MAIL ORDERS CAREFULLY EXECUTED.

R. H. MACY & CO.**CARNRICK'S
SOLUBLE FOOD**Perfectly nourishes the child from
birth, without the addition of cow's
milk, and digests as easily as hu-
man milk. Send for "Our Baby's
First and Second Years," by Marion
Harland. REED & CARNRICK, N. Y.**PISO'S CURE FOR
CURES WHERE ALL ELSE FAILS.**
Best Cough Syrup. Tastes good. Use
in time. Sold by druggists.
CONSUMPTION**TEACHERS' BOOKS.**
TEACHERS' PRICES
Elegant 84 page
descriptive cata-
logue free if you
mention this paper.
Largest stock; largest
discounts; promptness.
E. L. KELLOGG & CO., Educational Publs.,
25 Clinton Place, N. Y. 351 Wabash Av., Chicago.**THE GREAT AMERICAN
TEA
COMPANY****RAVEN GLOSS**Absolutely the best. Makes ladies' shoes look new,
not varnished. Economical. Ask any reliable
dealer. Do not be persuaded by interested dealers to
take anything else. BREVET & ORLEY, Mfrs., N. Y.**Hop Plaster**Without doubt the BEST plaster made. When
applied to any kind of pain or soreness, instant
relief is felt. Lame Back, Side or Hip, Sore Mus-
cles, Severe Aches, Strains, Kidney Diseases,
Rheumatism or any sort of soreness in any part
yield instantly to the pain-killing and strength-
ening properties of the Hop Plaster. Virtues of
fresh Hops, Burgundy Pitch and foreign Gums
combined in a sweet and never-failing Porous
Plaster. Used and recommended by hosts of
people. 25c. 5 for \$1. every where. Mailed for
price. Prop's HOP PLASTER CO., Boston, Mass.**My Back Aches!****ELY'S CATARRH
CREAM BALM**Gives Relief at once
and Cures.

Cold in Head

**CATARRH
Hay Fever.**Not a Liquid, Snuff
or Powder. Free from
Injurious Drugs and
Offensive odors.A particle is applied into each nostril and is
absorbable. Price, 50 cents at Druggists; by mail,
registered, 60 cents. ELY BROS., New York Office
235 Greenwich Street.**CURE FOR THE DEAF**Feck's Patent Improved Cushioned Ear Drums per-
fectly restore the hearing, and perform the work of
the natural drum. Always in position, but invisible
to others and comfortable to wear. All conversation
and even whispers heard distinctly. We refer to those
using them. Send for illustrated book with testimo-
nials, free Address
F. HISCOX 583 Broadway, N. Y. Mention this paper.**A Skin of Beauty is a Joy Forever.**
Dr. T. FELIX GOURAUD'S
Oriental Cream, or Magical Beautifier.Ladies will use them I recommend 'Gouraud's Cream'
as the least harmful of all the skin preparations. The
bottle will last six months using it every day. Also
I advise bottle removes superfluous hair without injury
to the skin.
FERD T. HOPKINS, Manager, 46 Bond St., running
through to Main Office, 37 Great Jones St., N. Y.
For sale by all Druggists and Fancy Goods Dealers
throughout the U. S., Canada and Europe. Also found
in N. Y. City at R. H. Macy's, Stern's, Ehrlich's, Hildley's
and other Fancy Goods Dealers. Beware of base
imitations. \$1.00 Reward for arrest and proof of any
one selling the same.PLEASE mention JOURNAL when corresponding
with advertisers.**GOOD NEWS
TO LADIES!**ENJOY A CUP OF GOOD TEA AND COFFEE.
Send to the OLD RELIABLE. No Humbug.Greatest inducements ever offered. Now's your time to get up
orders for our celebrated TEAS and COFFEES, and some a
beautiful Gold Band or Moss Rose China Tea Set, or Handsome
Decorated Gold Band Moss Rose Dinner Set, or Gold Band or Moss
Decorated Toilet Set, or White Granite Dinner Set, or Beautiful Parlor
Hanging Lamp, or Watch, or Webster's Unabridged Dictionary.
No house can give the same quality of goods and premiums as we.
We stand at the head and defy competition.
For full particulars, address**THE GREAT AMERICAN TEA COMPANY**
P. O. Box 220, 31 & 33 Vesey St., New YorkThere probably never lived many men
yet whom the world could, with safety,
call back to live their lives over again.The following startling announcement
appeared in a physiology examination
paper recently: "The alimentary canal
is a long canal in the body thirty feet in
diameter."Three men swore before a justice that
they saw the accused steal a pig. Ten
men were produced who swore that they
had not seen the theft. The magistrate
was puzzled: but said. "In this country,
the majority rule. I discharge the de-
fendant."A precocious boy asked the other day,
"Mamma, if I eat dates enough, will I
grow up to be an almanac?"The doctor says if Mr. Jones lives until
morning, he shall have some hopes of
him, but if he don't he must give him up."My little boy," said a gentleman, "you
ought not to eat those green apples."
They are not good for little boys." "They
ain't, eh?" the boy replied, with his
mouth full. "Guess you don't know much
about 'em, mister. Three of these apples
I'll keep me out of school for a week."

No time is thine but the present.

An ancient omen says that "if two
marriages are celebrated simultaneously,
one of the husbands will die." This omen
is no doubt verified in every instance; but
we are prepared to believe that the oth-
er husband will die, too, if he lives long
enough."I am engaged in scholarly pursuits,"
reflected a student-pedagogue, as he chased
a dodging urchin up and down the aisle
of a district school-house."They have discovered foot prints three
feet long in the sands of Oregon, sup-
posed to belong to a lost race." It is
impossible to conceive how a race that
made foot prints three feet long could
get lost.Smith, who is afflicted with a sore throat,
has asked his friend Brown to examine it.
Brown (peering down Smith's throat):
"On which side is the sore spot?" Smith
(speaking with difficulty): "On the left
side." Brown: Coming up or going down?""Mawnin' Willmy; you dressed up
like yo' gwine to one ob dese yere colly-
idge communcings. What degree yo'
gwine to take?" "If you coan stop yo'
talk I'll rec'mend you fo' de degree what
Jawge Jonsing died of." "What's dat?"
"Dat's murder in de first degree."**IMPORTANT.**When visiting New York City, save baggage,
Express and Carriage Hire, and stop at the
Grand Union Hotel, opposite Grand Central
Depot.600 Handsomely Furnished Rooms at \$1 and
upwards per day, European plan. Elevators, and
all Modern Conveniences.
Restaurants supplied with the best. Horse cars,
stages, and elevated railroads to all depots. You
can live better for less money at the Grand Union
Hotel, than any other first-class hotel in the City.The elephants are prudent animals.
Those who escaped from the fire in Bar-
num's circus took their trunks with them.Mistress (arranging for dinner)—"Didn't
the macaroni come from the grocer's,
Eridget?" Bridget—"Yis, mum, but oil
sint it back. Every wan av thim stims
was impty."**ADVICE TO MOTHERS.**MRS. WINLOW'S SOOTHING SYRUP should al-
ways be used for CHILDREN TEETHING. It
SOOTHES THE CHILD, SOFTENS THE GUMS, always
all PAIN, CURES WIND COLIC and is the BEST REM-
EDY FOR DIARRHOEA. 25 CTS. A BOTTLE.If told to take a "back seat," one will
invariably take affront."Oh, Tommy, that was abominable in
you to eat your sister's share of the cake."
"Why," said Tommy, "didn't you tell me,
ma, that I was always to take her part?"For three weeks I was suffering from a severe
cold in my head, accompanied by a pain in the
temples. I tried some of the many catarrh reme-
dies without any relief. Ely's Cream Balm was
recommended to me. After only six applica-
tions of the Balm every trace of my cold was
removed. Henry C. Clark, 1st Division New
York Appraisers' Office.Ely's Bros., I have been afflicted with catarrh.
I purchased a bottle of your Cream Balm. It
has effected a complete cure. H. C. Abbott,
97 Grant ave., Allegheny City, Pa.Wife (to husband)—there were two hats
that I liked, one for \$18 and one for \$18.Husband—Which did you finally decide
upon?
Wife—The eighteen-dollar one. I'm a
little superstitious about the number
thirteen.**"Did n't Know 't was
Loaded"**May do for a stupid boy's excuse; but
what can be said for the parent who
sees his child languishing daily and fails
to recognize the want of a tonic and
blood-purifier? Formerly, a course of
bitters, or sulphur and molasses, was the
rule in well-regulated families; but now
all intelligent households keep Ayer's
Sarsaparilla, which is at once pleasant
to the taste, and the most searching and
effective blood medicine ever discovered.Nathan S. Cleveland, 37 E. Canton st.,
Boston, writes: "My daughter, now 21
years old, was in perfect health until a
year ago when she began to complain of
fatigue, headache, debility, dizziness,
indigestion, and loss of appetite. I con-
cluded that all her complaints originated
in impure blood, and induced her to take
Ayer's Sarsaparilla. This medicine soon
restored her blood-making organs to
healthy action, and in due time reestab-
lished her former health. I find Ayer's
Sarsaparilla a most valuable remedy for
the lassitude and debility incident to
spring time."J. Castright, Brooklyn Power Co.,
Brooklyn, N. Y., says: "As a Spring
Medicine, I find a splendid substitute
for the old-time compounds in Ayer's
Sarsaparilla, with a few doses of Ayer's
Pills. After their use, I feel fresher and
stronger to go through the summer."**Ayer's Sarsaparilla,**

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.
Price \$1; six bottles, \$5. Worth \$5 a bottle.Musical, far sounding & highly satisfac-
tory Bells for Schools, Churches, etc.
MENEELY & CO. Estab-
lished 1860
WEST TROY, N. Y.
Description prices and on application.**BUCKEYE BELL FOUNDRY.**
Bells of Pure Copper and Tin for Churches,
Schools, Fire Alarms, Farms, etc. FULLY
WARRANTED. Catalogue sent Free.
VANDUZEN & TIFT, Cincinnati, O.**McShane Bell Foundry**
Finest Grade of Bells,
CHIMES and PEALS for CHURCHES, etc.
Send for Price and Catalogue. Address
H. McSHANE & CO.,
Baltimore, Md.
Mention this paper.**ATTENTIVE, RELIABLE MEN AND WOMEN.**
WANTED AT ONCE
To take Charge of the interests of "Treasure-Trove"
—IN—
School Districts, Villages, Towns, and Counties.
NOT AT PRESENT ENGAGED IN THE WORK.
Teachers can make more than double the salaries they would receive in teach-
ing. We can make it profitable, permanent work for you. Now is the time
to commence a highly remunerative work. Write us for full particulars. State
what experience you have had in canvassing. Send for information regarding a
new plan or method whereby a most valuable and taking article of school appa-
ratus which sells in every school, can be supplied to schools, in connection with
TREASURE-TROVE. Special Territory allowed. Agents assured of large financial
Returns. Apply at once, or address,
TREASURE-TROVE CO., 25 Clinton Place, New York.**TEACHERS' BOOKS**
Elegant 84 page
descriptive cata-
logue free if you
mention this paper.
Largest stock; largest
discounts; promptness.
E. L. KELLOGG & CO., Educational Publs.,
25 Clinton Place, N. Y. 351 Wabash Av., Chicago.
TEACHERS' PRICES

Volume V.—International Education Series.

Edited by WM. T. HARRIS, LL.D.

Froebel's Education of Man,

Translated and furnished with ample notes by
W. N. HAILMANN, A. M.,
Superintendent of Public Schools, La Porte, Ind.A Complete presentation of the principles of the *New Education* in all of its phases, particularly with reference to early child-culture in home, kindergarten, and school.

PRICE, \$1.50.

Mailed, post-paid, on receipt of price. Special terms will be made on class-supplies. Send for full descriptive circulars, etc.

D. APPLETON & CO., Publishers, New York, Boston, Chicago, Atlanta, San Francisco.

ECLECTIC SERIES. NEW PUBLICATIONS.

Palmer's Science of Education. By mail, \$1.17	Morris's Scripture Readings - - .80
White's Pedagogy. By mail. - - 1.17	Aborn's Mechanical Drawing. - - .35
White's Monthly Record, By mail. - .48	Eclectic Language Lessons. - - .35
Introduction Price.	McGuffey's Word List. - - .10
Eclectic Guide to Health. (Temperance Physiology.) .60	McGuffey's Alternate Readers } Price List on application.
The House I live In, (Primary Temperance Physiology.) .30	Eclectic German Readers. }

Send for our Complete Catalogue and Proposition of Exchange and Introduction rates.

VAN ANTWERP, BRAGG & CO., Publishers, Cincinnati, O.

28 BOND STREET, NEW YORK.

8 HAWLEY STREET, BOSTON.

Allen's Composition Books.

NUMBERS 1 AND 2.

HOW TO THINK AND WHAT TO WRITE.

Graded and adapted to pupils from 8 to 12 years of age.

These books contain outlines for Composition Work, Rules for Punctuation, &c., and Blanks for Writing.

Sample copies mailed postpaid for 10 cents each. Send postage stamps for samples to

TAINTOR BROTHERS & CO., Publishers,

18 and 20 Astor Place, New York,

Or, 122 and 124 Wabash Avenue, Chicago.

JUST PUBLISHED.

BUTLER'S ELEMENTARY GEOGRAPHY,
BUTLER'S COMPLETE GEOGRAPHY,
BUTLER'S PHYSICAL GEOGRAPHY.

Write for Specimen Pages.

E. H. BUTLER & CO., Philadelphia.

O. H. BROWNE, Agent, 686 Broadway, New York.

THREE NEW BOOKS.

First Term's Work in Well's Essentials of Reading.

By HELEN M. CLEVELAND.

A new Primer nicely illustrated.

Sample copy by mail 10 Cents.

Well's Trigonometry. with Four Place Tables, \$1.08. And,

Well's Plane Trigonometry. 75 cts. By Webster Wells, Prof. of Mathematics in Mass. Inst. of Technology.

LEACH, SHEWELL & SANBORN, Publishers,
87 Franklin Street, Boston. 743 Broadway, New York.

STONE'S HISTORY OF ENGLAND

By A. P. STONE, LL.D.,

Superintendent of Schools, City of Springfield, Mass.

Legally adopted in cities of Boston, Philadelphia, Albany, Minneapolis, Indianapolis, Grand Rapids, Denver, and other important cities throughout the country. It is not only an admirable text-book in the study of English history, but has proved very successful as a supplementary reader, in connection with United States History when English is not a prescribed study. Sample copy sent by mail for 50 cents.

THOMPSON, BROWN & CO., Publishers,
Boston, Mass.

OUR readers are urged to examine the advertising columns each week as interesting announcements will always be found there. When communicating with advertisers readers will render a special service to the JOURNAL by mentioning it on such occasions. Some advertisers seem to require this evidence that their announcements meet the eyes of the particular class they desire to reach. Hence this request.

A. S. Barnes & Co.'s Souvenir

FOR 1888.

THE ART OF PENMANSHIP,

And a few Suggestions as to the Best Methods of Acquiring a Neat and Plain Style of Writing.

Most beautifully lithographed original specimens of the best styles of penmanship, prepared expressly for the Souvenir by 88 of the best Penmen.

Price 25 cents. (Sent post-paid to any teacher sending same, on receipt of 10 cents in postage stamps.) Address,

A. S. BARNES & COMPANY, Publishers,

111 & 113 William Street, New York.

Payson, Dunton & Scribner's

STEEL PENS, (Imported.)

No. 117, (Excelsior.)

No. 115, (School.)

No. 217, (Intermediate.)

No. 215, (Half Stub.)

No. 317, (Commercial.)

No. 315, (Falcon.)

Campbell's School Record, No. 1, Weekly.

Campbell's School Record, No. 2, Monthly.

Campbell's School Diary, No. 3, Weekly.

Campbell's School Diary, No. 4, Monthly.

Write for samples and introductory terms.

POTTER, KNIGHT, AINSWORTH & CO.,

School Book Publishers, 107 Chambers Street, New York City.

CYCLOPÆDIA

Every home, school, and office needs a Cyclopædia, which should be reliable, fresh as to information, and low in price. Johnson's Universal Cyclopædia (1887) is ten years later than either Appleton's or the Britannica, is more reliable and satisfactory, and costs only half as much.

A. J. JOHNSON & CO.,
11 Great Jones St., New York.

"NOT EQUALLED BY ANY OTHER."

WARREN'S

PRIMARY GEOMETRY

With simple and practical examples in Plane and Projective Drawing. Suited to Common and Elementary Private Schools, and containing: Introduction—Measuring and Drawing—Straight Lines—Triangles—Central or Regular Figures—Areas—Lines and Planes in Space—Elementary Bodies—Projections of Elementary Solids.

By S. EDWARD WARREN, C. E., late Professor in the Henssler Polytechnic Institute, Troy, N. Y., etc., etc. 12mo, cloth, 75 cts.

"Prepared with great care . . . more elementary than most geometries . . . Might be used in the grammar grade with good effect, etc." New England Journal of Education.

Published and for sale by
JOHN WILEY & SONS, New York.
Catalogue and circular sent free by mail.

THE publishers of THE JOURNAL would esteem it a favor if names of teachers who do not take it, and who would be likely to be interested, are sent them that they may send them specimen copies.

First Steps in Scientific Knowledge.

By PAUL BERT.

"It makes the teaching of Elementary Science possible in the Common School."
"Price List and Descriptive Catalogue free on application."

J. B. LIPPINCOTT COMPANY,

715 & 717 Market Street, Philadelphia,
Publishers of School and College Text-Books, etc.
Dealers in School Stationery and Supplies.THOMAS NELSON & SONS,
42 Bleeker Street, New York,

PUBLISH

"Collier's Histories,"

AND

"World at Home Readers."

Their catalogue will be sent free to any address and contains a large proportion of books suitable for Supplementary Reading.

LEPAGE'S
THE ONLY GENUINE
LIQUID GLUE

Used by thousands of first-class Manufacturers and Mechanics on their best work. Its success has brought a lot of imitations copying us in every way possible. Remember that THE ONLY GENUINE Lepage's Liquid Glue is manufactured solely by the RUSSIA CEMENT CO., GLOUCESTER, MASS. Sample by mail 10c stamp.

The Best! John E. Potter & Co's
TEXT-BOOKS.WHY? 1. They are the most systematic.
2. They are the most practical.
3. They are the easiest to teach.
4. They are the most complete and economical.

SEND FOR CATALOGUE.

JOHN E. POTTER & CO., Publishers,

35 NORTH 10th STREET.

PHILADELPHIA, PA.

MACMILLAN & CO'S

SERIES OF SCIENTIFIC TEXT-BOOKS.

Huxley's Lessons in Elem. Physiology . . . \$1.10
Geikie's Lessons in Physical Geog.1.10
Roscoe's Lessons in Elem. Chemistry1.10
Jones' Junior Course of Fr. Chemistry70
Jevon's Elementary Lessons in Logic40
Stewart's Lessons in Elem. Physics1.10
Lockyer's Elem. Lessons in Astronomy . . .1.25
Educational Catalogue sent free on application.

112 Fourth Ave. New York.

A. LOVELL & CO., Educational Publishers, 16 Astor Place, New York City.

Walker's Physiology, by mail, \$1.35; Practical Work in the School Room, Part I. Teachers' Edition, 80 cts.; Pupils' Edition, 35 cts.; Part II. (The A B C Reader), per set, 25 cts.; Part III. (Lessons on Plants), 80 cts.; Selected Words for Spelling, etc., 25 cts.; DeGraff's Developmental Lessons, \$1.20; Froebel's Education of Man, \$1.30; cloth, 55c. boards. Giffin's Graded Review Questions, 55 cts. Garlands' Philosophy of Words, \$1.35. Send for catalogue.

Do You Wish a Botany

That is simple, scientific, and beautifully illustrated; written by one who is in the practical work of teaching? If so, send One Dollar to

GEO. SHERWOOD & CO.,

307 and 309 Wabash Ave., Chicago, Ill., and they will send to you ABRIE G. HALL'S Lessons in Botany and Analysis of Plants.

HOLMES' NEW READERS.

Best ideas; neatest illustrations; cheapest books. Samples will repay teacher or parent. First Reader, 15 cents; Second, 25 cts.; Third, 40 cts.

UNIVERSITY PUBLISHING CO.,

19 Murray Street, New York.

The Business-Standard Copy-Books

LATEST. CHEAPEST. BEST.

THE LARGEST BOOKS FOR THE LEAST MONEY. THE ONLY SERIES HAVING DUPLICATE COPY IN THE MIDDLE OF EACH PAGE.

PRIMARY COURSE, 7 Nos., per Doz., 72 cts
COM. SCHOOL COURSE, 7 Nos., per Doz., 98 ctsCOWPERTHWAIT & Co.
PHILADELPHIA, PA.

READERS will confer a favor by mentioning THE JOURNAL when communicating with advertisers.